Draft

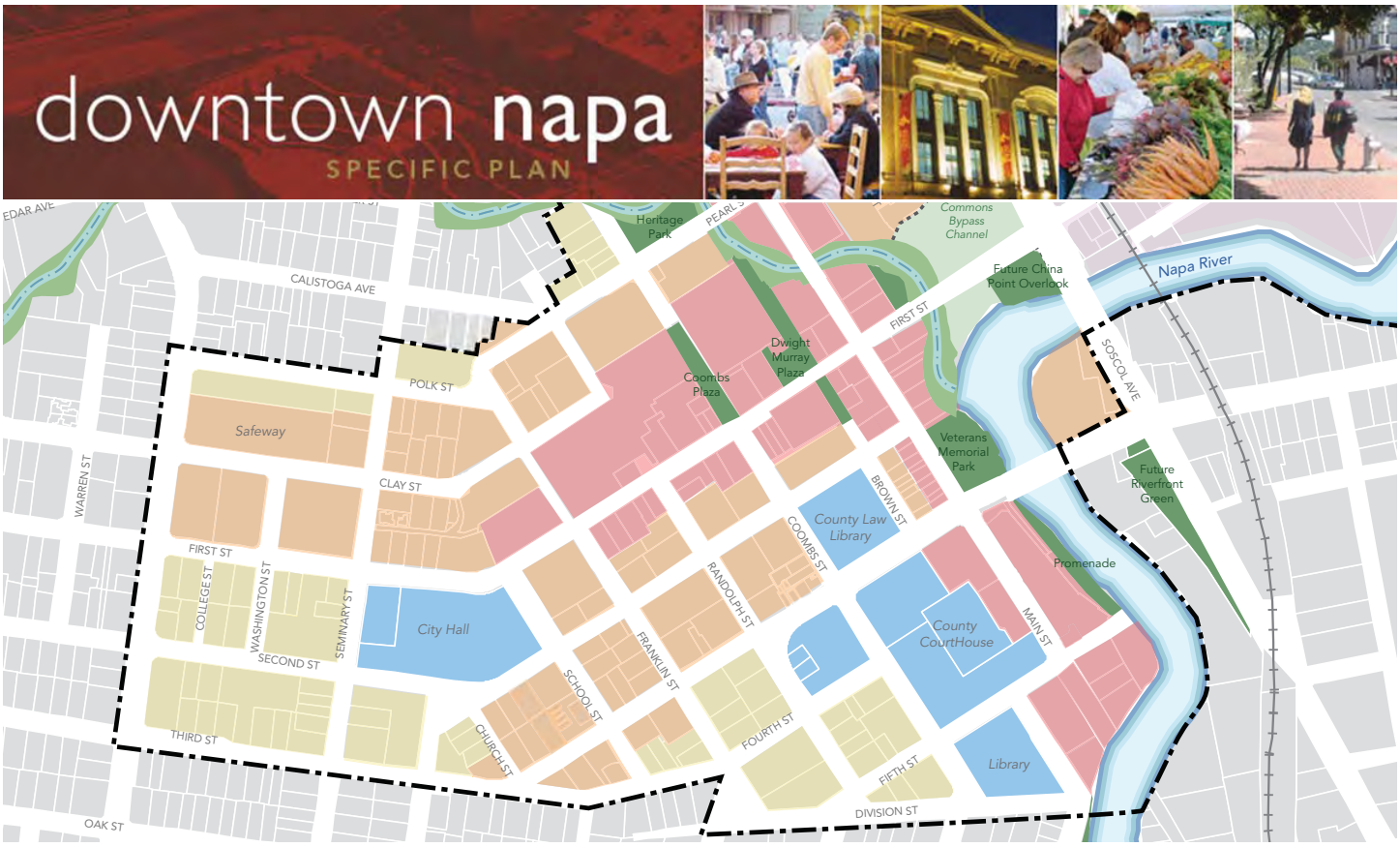
DOWNTOWN NAPA SPECIFIC PLAN

Program Environmental Impact Report

Prepared for
City of Napa

January 2012

ESA



CITY OF NAPA
PLANNING DEPARTMENT
1600 First Street
Napa, CA 94559

Notice of Availability of a Draft Environmental Impact Report for the Downtown Napa Specific Plan

The Downtown Napa Specific Plan would guide all new development in the Planning Area through detailed policies, design guidelines and development standards and financing mechanisms. New development projects would be required to follow the policies, programs and guidelines set forth in the specific plan. Existing developments would not be directly affected unless the occupants or owners choose to expand or change their structures, grounds or uses.

The City of Napa issued a Draft Environmental Impact Report (Draft EIR) for the proposed project (State Clearinghouse No. 2010042043) on Friday, January 27, 2012 for the statutory 45-day public review period. The public review comment period will conclude on **Monday, March 12, 2012**.

A public hearing will be conducted by the Planning Commission on February 16, 2012, at 7:00 PM, in Council Chambers, City Hall, 955 School Street, Napa to receive public comment on a Draft Environmental Impact Report (EIR) prepared for the Downtown Napa Specific Plan project pursuant to the guidelines and procedures of the California Environmental Quality Act.

The Draft EIR is available in print form at the locations listed below. The Draft EIR is also available electronically on the City of Napa's website: http://www.cityofnapa.org and on the project website: www.downtownnapaspecificplan.org. It is also available on CD at the City of Napa offices.

City of Napa
Community Development Department
1600 First Street
Napa, CA 94559
Hours:
Monday - Friday, 9 a.m. to 5 p.m.

Napa Main Library
580 Coombs Street
Napa, CA 94559
Hours:
Monday - Thursday: 10 a.m. to 9 p.m.
Friday: 10 a.m. to 5:30 p.m.
Saturday: 10 a.m. to 5 p.m.
Sunday: 2 p.m. to 9 p.m.

The City of Napa is soliciting written comments on the Draft EIR. Written comments should be submitted to the address shown below by **5:00 p.m., Monday, March 12, 2012**. For agencies and organizations submitting comments, it is requested that a contact person be identified.

Julianne Ward, Associate Planner
City of Napa
Community Development Department
1600 First Street
Napa, CA 94559

Phone: (707) 257-9345
Fax: (707) 257-9522
Email: jward@cityofnapa.org

Draft

DOWNTOWN NAPA SPECIFIC PLAN

Program Environmental Impact Report

Prepared for
City of Napa

January 2012

225 Bush Street
Suite 1700
San Francisco, CA 94104
415.896.5900
www.esassoc.com

Los Angeles

Oakland

Orlando

Palm Springs

Petaluma

Portland

Sacramento

San Diego

Santa Cruz

Seattle

Tampa

Woodland Hills

208649

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

TABLE OF CONTENTS

Downtown Napa Specific Plan
Draft Program Environmental Impact Report

Page

Appendices

List of Figures

Page

List of Figures (continued)

List of Tables

Page

List of Tables (continued)

CHAPTER 1
Introduction

A. Project Overview

This chapter provides an introduction to the purpose, approach, assumptions, issues, and organization of this Draft Program Environmental Impact Report (EIR) on the proposed Downtown Napa Specific Plan (Specific Plan). This Draft Program EIR was prepared in accordance with, and in fulfillment of, the California Environmental Quality Act (CEQA) and the state CEQA Guidelines. As described in the state CEQA *Guidelines* §15121(a), an EIR is a public informational document that assesses the potentially significant environmental impacts of a project. CEQA requires that an EIR be prepared by the agency with primary responsibility over the approval of a project (the Lead Agency). The City of Napa is the Lead Agency for the Specific Plan. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible and have the obligation to balance economic, environmental, and social factors.

Type of Document

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR serves as a "Program EIR." Program EIRs are defined by the CEQA *Guidelines* §15168 as,

> *"[A] series of actions that may be characterized as one large project and may be related either:*
>
> *1) Geographically;*
>
> *2) As logical parts in the chain of contemplated actions;*
>
> *3) In connection with the issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or*
>
> *4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which may be mitigated in similar ways."*

The program-level analysis considers the broad environmental effects of the overall proposed Specific Plan. This Draft Program EIR will be used to evaluate likely subsequent projects (public and private) under the proposed Specific Plan consistent with CEQA and the state CEQA Guidelines. When individual projects or activities under the Specific Plan are proposed, the City would be required to examine the projects or activities to determine whether their effects were

adequately analyzed in this Draft Program EIR. If the projects or activities would have no effects beyond those analyzed in this Draft Program EIR, no further CEQA compliance would be required.

As a Draft Program EIR, this document focuses on the likely increased number of residential units over the 25-year planning horizon (2010 to 2035) plus the commercial and other non-residential uses that could occur. Potential areas of change are described in more detail in Chapter 3 of this Draft Program EIR. Associated changes to infrastructure (e.g., water, wastewater, etc.) are also addressed at a programmatic level of detail.

Purpose of the EIR

This Draft Program EIR has been prepared to provide the public and responsible trustee agencies with information about the potential effects of adoption and implementation of the Downtown Napa Specific Plan. This Draft Program EIR identifies policies and implementation programs within the Specific Plan that minimize these effects, as well as any additional mitigation measures necessary to further minimize significant impacts to the environment. This Draft Program EIR also evaluates reasonable alternatives to the proposed project. An environmentally superior alternative is identified as part of the process. A required "No Project" alternative discusses the result of not implementing the project or any reasonable alternatives. Comments generated from public review of this document will be used to revise the Draft Program EIR and to prepare the Final Program EIR.

The City of Napa has determined that preparation of a Program EIR is appropriate due to potentially significant environmental impacts that could be caused by implementing the proposed Specific Plan. This Draft Program EIR provides a general review of the environmental effects of infill and/or redevelopment in Downtown based on proposed land use designations. This Draft Program EIR will be used to evaluate the direct and indirect environmental effects of subsequent development under the Specific Plan (i.e., residential development, rezones, commercial structures, park sites, recreation facility development, and infrastructure improvements).

Relationship to Other Planning Documents

A number of federal, state, regional, and local plans and regulations have been adopted that would pertain to development associated with the Specific Plan. In some cases, compliance with these plans/laws would provide additional mitigation of the impacts of future land uses and development.

Federal Government

There are no federal plans that directly affect local land use decisions, but federal laws such as the Endangered Species Act (ESA) can affect individual land uses in a significant way. For example, projects must comply with the National Environmental Policy Act (NEPA), as well as the ESA, when federal funding or federal permits are involved for projects such as highway construction, other public infrastructure, or permits for fill within waters of the U.S. (404 permit). The U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Agency, and the Department of Housing and Urban Development are examples of responsible federal agencies that exercise jurisdiction over such projects.

State and Regional Government

State and regional agencies also can exert influence on local land use and development decisions. Often these agencies have their own adopted plans. The state's influence is primarily accomplished through funding of public infrastructure. The California Department of Fish and Game and the Department of Conservation influence or directly regulate various future land uses and development in the city, depending on the resources that may be adversely affected (e.g., stream corridors). The California Department of Transportation (Caltrans) influences the design and construction of state roadways, including State Routes 29, 121 and 221 in Napa. State requirements are often implemented through regional planning and regulatory agencies, including:

- The Regional Water Quality Control Boards' Basin Plans and point and non-point water quality regulations;
- The Metropolitan Transportation Commission's Regional Transportation Plans;
- The Association of Bay Area Government's distribution of Regional Housing Needs; and
- The Bay Area Air Quality Management District's Clean Air Plans and permit regulations.

B. Environmental Review

Consistent with CEQA, this EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental consequences of the proposed project, to recommend mitigation measures to lessen or eliminate adverse impacts, and to examine feasible alternatives to the project. Pursuant to CEQA *Guidelines* §15168, this Draft Program EIR presents a program-level analysis since the individual projects that comprise the Specific Plan would be "carried out under the same authorizing statutory or regulatory agency (City of Napa) and have generally similar environmental effects which can be mitigated in similar ways." Consistent with § 15168, this Draft Program EIR examines the likely development identified in the Specific Plan and assesses potential environmental impacts associated with this development.

The City will review and consider the information contained in the EIR prior to taking action on adopting the Specific Plan. Per *Guidelines* § 15090 of the CEQA *Guidelines*, prior to adopting the Specific Plan, the City must certify that the Draft and Final Program EIRs have been completed in compliance with CEQA, and that the decision-making body of the lead agency considered the information contained in the Final Program EIR prior to approving the Specific Plan.

CEQA requires that the City shall neither approve nor implement a project unless the project's significant environmental effects have been reduced to a less-than-significant level, essentially "eliminating, avoiding, or substantially lessening" the expected impact, except when certain findings are made. If the City approves a project that will result in the occurrence of significant adverse impacts that cannot be mitigated to less-than-significant levels, the agency must state the reasons for its action in writing, demonstrate that its action is based on the EIR or other information in the record, and adopt a Statement of Overriding Considerations.

Notice of Preparation

On April 12, 2010, the City sent a Notice of Preparation (NOP) to government agencies, organizations, and individuals potentially interested in Specific Plan. The NOP is included as **Appendix A** of this Draft Program EIR. The NOP requested that agencies with regulatory authority over any aspect of the Specific Plan describe that authority and identify the relevant environmental issues that should be addressed in the Draft Program EIR. Interested members of the public were also invited to comment. Responses to the NOP are included as **Appendix C**.

Draft Program EIR

This document constitutes the Draft Program EIR. The Draft Program EIR contains a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. Upon completion of the Draft Program EIR, the City will file the Notice of Completion (NOC) with the Governor's Office of Planning and Research to begin the 45-day public review period (Public Resources Code §21161).

Public Notice and Public Review

Concurrent with the NOC, the City will provide public notice of the availability of the Draft Program EIR for public review, and invite comment from the general public, agencies, organizations, and other interested parties. The public review period will be forty-five (45) days beginning **January 27, 2012**.

All comments or questions regarding the Draft Program EIR should be addressed to: Julianne Ward, City of Napa, PO Box 660, Napa, CA 94559, telephone 707-257-9345, fax 707-257-9522, or email jward@cityofnapa.org by specifying "Napa Downtown Specific Plan EIR" in the subject line.

Final EIR and Certification

Following the public review period, a Final Program EIR will be prepared. The Final Program EIR will respond to written comments received during the public review period and to oral comments made at the public hearing.

Certification of the EIR, Project Consideration, and Mitigation Monitoring

The City will review and consider the Final Program EIR. If the City finds that the Final Program EIR is "adequate and complete," the City will certify the Final Program EIR. Upon review and consideration of the Final Program EIR, the Napa City Council may take action to approve, revise, or reject the plan. A decision to approve the plan would be accompanied by written findings in accordance with CEQA *Guidelines* §15091 and §15093. A Mitigation Monitoring and Reporting Program would also be adopted for mitigation measures that have been incorporated into or imposed upon the plan to reduce or avoid significant effects on the environment per

Section 21081.b(a) of the CEQA *Guidelines*. This Mitigation Monitoring and Reporting Program would be designed to ensure that these measures are carried out during Plan implementation, and would be adopted at the time of approval of the proposed Specific Plan.

C. Organization of the Draft EIR

The *Summary* (Chapter 2) includes a brief project description and an overview table of the environmental impacts identified by this Draft Program EIR. The summary table lists the environmental impacts, proposed mitigation measures, and the level of significance after mitigation. Detailed analysis of these impacts and mitigations is provided in Chapter 4 (Environmental Setting, Impacts and Mitigation Measures).

The *Project Description* (Chapter 3) describes the project location, expected future growth, and key characteristics of the Specific Plan. This chapter also includes a list of the City's required approvals and other agencies that may consider aspects of the Specific Plan.

Environmental Setting, Impacts and Mitigation Measures (Chapter 4) contains a discussion of the setting (existing conditions and regulatory framework) and the environmental impacts (including cumulative impacts) that could result from the Specific Plan. It includes the criteria used to assess the significance of adverse environmental effects. The chapter also identifies the mitigation measures that would reduce or eliminate these adverse impacts. The impact discussions include the significance of each impact both with and without implementation of mitigation measures and/or standard conditions.

Alternatives (Chapter 5) evaluates a range of alternatives to the proposed Specific Plan development scenarios and identifies an environmentally superior alternative, consistent with the requirements of CEQA. The alternatives analyzed are: Alternative 1: No Project; Alternative 2: Reduced Development; and Alternative 3: Reduced Office and Residential.

Growth-Inducing and Cumulative Effects (Chapter 6) presents a focused analysis of the impacts identified in Chapter 4 with a specific discussion regarding the Specific Plan's potential for inducing growth. In addition, this chapter addresses significant, unavoidable impacts and cumulative impacts.

Report Preparation (Chapter 7) identifies the authors of the Draft Program EIR. Persons and documents consulted during preparation of the Draft Program EIR are listed at the end of each analysis section (Sections 4.A through 4.M).

Appendices The NOP, comment letters received on the NOP, as well as supporting documents and technical information for the impact analyses are presented in Appendices A through D.

All reference documents listed at the end of each analysis section (Chapter 4) are available for review by the public. Documents are available at the City of Napa, 1600 First Street, Napa, CA 94559.

CHAPTER 2
Summary

A. Introduction

As provided by §15123 of the California Environmental Quality Act (CEQA) Guidelines, this chapter provides a brief summary of the proposed project's actions and its consequences. The proposed project is the Downtown Napa Specific Plan (Specific Plan), which will guide development-related decisions through planning framework and policies to the horizon of 2035. The plan provides a long-term vision for Downtown, and identifies implementation policies, that direct how that vision may be achieved over the life of the document.

California State Law authorizes cities with adopted General Plans to prepare and adopt Specific Plans (in accordance with Government Code § 65450), if so directed by their legislative bodies, to use as an implementation tool between the General Plan and individual development proposals. The Specific Plan normally combines zoning regulations, a capital improvement program, development standards, design guidelines and other regulations or policies tailored to meet the needs of a specific planning area. By law, the Specific Plan is required to discuss open space, transportation, sewage, water, drainage, solid waste disposal, energy and other essential facilities proposed to be located within the planning area, or required to support the land uses proposed.

Development in Napa is guided by the goals, objectives, and policies set forth in the City's General Plan, which was adopted by the Napa City Council in 1998. The City of Napa would adopt the Downtown Napa Specific Plan under a procedure that is consistent with the General Plan, and the Downtown Napa Specific Plan will be adopted as an amendment to the General Plan.

B. Purpose of the Environmental Impact Report

As provided by CEQA, a Program EIR may be prepared for a series of related actions that are characterized as one large project or program (CEQA *Guidelines* §15168). In accordance with California's Public Resources Code (PRC) § 21002.1, the City has prepared this EIR for the following purposes:

- To inform the general public, the local community, responsible and interested public agencies, the decision-making body and other organizations, and interested persons of the scope of the proposed project, its potential environmental effects, possible measures to reduce potentially significant environmental impacts and alternatives that could reduce or avoid the significant effects;

- To enable the County to consider environmental consequences when deciding whether to approve the proposed project; and
- To satisfy the substantive and procedural requirements of CEQA.

This Draft Program EIR has been prepared in accordance with CEQA (PRC § 21000 et seq.) and the CEQA *Guidelines* (CCR, Title 14, §15000 et seq.). As provided in the CEQA *Guidelines*, public agencies are charged with the duty to substantially lessen or avoid significant environmental effects where feasible for projects subject to CEQA (refer to PRC Section 21004, CEQA *Guidelines* § 15002(a)(3) and 15021(a)(2)). In discharging this duty, the public agency has an obligation to balance a variety of public objectives, taking into account economic, environmental and social issues. This Draft Program EIR is intended to be an informational document that informs public agency decision-makers and the general public of the significant environmental effects of the proposed project. In addition, this Draft Program EIR is also intended to discuss the ways in which those impacts can be reduced to less than significant levels, either through the imposition of mitigation measures or through the implementation of specific alternatives to the project as proposed. This Draft Program EIR provides the primary source of environmental information for the lead agency to consider when exercising any permitting authority or approval power directly related to implementation of the proposed project.

C. Project Location and Setting

The project site is located in Northern California, in the City of Napa, which is approximately 50 miles north of San Francisco. Within Napa, Downtown is located on the west bank of the Napa River, which runs north-south through the City, starting in Mount St. Helena to the north, to San Pablo Bay to the south, eventually leading into the San Francisco Bay. Downtown is located near a large meandering oxbow in the river's course. Downtown is in the central part of the City, located between State Route 29 and State Route 121.

The Specific Plan Planning Area encompasses approximately 210 acres, and is bounded on the east by the eastern bank of the Napa River, on the south by Division and Third streets, and on the west by Jefferson Street. The northern boundary generally follows the zigzagging edge of the "Downtown Commercial" zoning area boundary adjacent to northern residential neighborhoods along Polk and Caymus streets west of Soscol Avenue. Planning Area boundaries extend east to include the Oxbow Market and former Copia area east of Soscol Avenue.

The Planning Area includes a diverse mix of land uses, including residential, lodging, retail, restaurant, office and civic uses. Most of the downtown core, west of Soscol Avenue, is a diverse range of commercial uses ranging from small, local shops and restaurants to larger-format retail. Office uses are spread throughout Downtown, although several historic residential structures have been converted to office uses south of the commercial core. The Planning Area also contains several public facilities, including city and county administrative offices, the County Courthouse, and the Napa Library. There are approximately 125 housing units within the Planning Area, primarily of single-family houses, condominiums and apartments. Residential neighborhoods are adjacent to Downtown on the south, north, east and west.

D. Project Description

The proposed project has been designed to provide an integrated, mixed-use environment that is inviting to residents, visitors and businesses and is consistent with the City's General Plan. The Specific Plan includes specific development standards and design guidelines that embody the communities vision. The Plan would allow greater flexibility in planning with new land use districts, and would create development standards for three "Focus Areas", which consist of Town Center, CineDome, and Copia, and would preserve historic buildings. The Plan also includes improvements to circulation and public facilities. These components of the proposed project are summarized below.

Proposed Land Use Designations

The Specific Plan proposes 5 new land use designations and one new overlay district which would replace the existing General Plan designation and would require a General Plan Land Use Amendment. These land use designations consist of:

- **Downtown Core Commercial**, which focuses on First Street from School Street to the Napa River, and Main Street from the Napa Mill to Caymus Street. The designation allows for a pedestrian-oriented retail center and a mixed-use with active ground level retail and personal service uses, and upper levels of office, residential and other supporting uses.

- **Downtown Mixed-Use**, which applies to the blocks surrounding the Downtown Core Commercial area from Fourth Street to the northern boundary of the Planning area, and from Jefferson and Wilson streets east to the Napa River. This designation is more oriented to neighborhood needs, and provides for retail, offices, institutional, recreation, entertainment, hotel, transportation, public uses and similar uses that would strengthen Downtown's role as the community's center.

- **Oxbow Commercial**, which applies to the portion of the Planning Area which is east of Soscol Avenue. This designation is oriented towards tourists and visitors and encourages lodging, recreation, retail, commercial, entertainment, restaurants (including artisanal food and beverage production) and similar uses.

- **Downtown Neighborhood**, which applies to the blocks along the southern and western edges of the Planning Area, as well as Polk Street, and a block north of Clinton Street. This designation is intended to create a transition between the commercially-oriented uses in the center of Downtown and the residential neighborhoods that surround Downtown. It provides for a compatible mix of residential and office uses, live/work and residential/office mixed-use developments, along with bed and breakfast inns and public and quasi-public uses.

- **Downtown Public**, which applies to the Napa County Courthouse complex, adjoining libraries and Napa City Hall. This designation provides for public and quasi-public properties dedicated to community serving, such as government offices and other service facilities, along with public lands devoted to open spaces and trails.

- **Entertainment District**, is an overlay district which applies to Main Street between Clinton Street and the Napa Mill. This designation would encourage entertainment uses and would provide a streamlined administrative process for uses that meet designated performance standards.

Development Standards

The Specific Plan outlines development standards which would shape the form and character of development within Downtown, by promoting coordinated and cohesive site planning and design. There are three Building Form Zones in the Planning Area:

- **Downtown I zone** would allow the most intensive development at the very center of Downtown, north of First Street and running from the intersection of First and Main streets west to School Street.

- **Downtown II zone** encompasses most of Downtown except for the core and edges and all of the land east of Soscol Drive. The zone would allow medium- to high-density development designed to support uses located in the heart of the Downtown area.

- **Transition zone** encompasses blocks or half-blocks between the downtown core and the sensitive lower-scale residential neighborhoods surrounding Downtown. Generally, the southern and western blocks are characterized by the Downtown Neighborhood land use district, while the northern blocks are characterized by Mixed-Use and Downtown Core Commercial land use districts.

Development standards and programs are also crafted to preserve historic commercial and residential properties which date from the Victorian era through the post-World War II era and are rendered in a variety of architectural styles. Programs would include tax credits, reduced permit fees, parking exemptions or reductions, and design exceptions that would facilitate the rehabilitation of historic structures.

Circulation Improvements

In addition to future development, the Specific Plan addresses key issues and opportunities as they relate to automobile, bicycle and pedestrian circulation throughout the Planning Area. The Plan encourages greater connectivity for all modes of transportation and presents alternatives for traffic circulation patterns to improve overall circulation throughout the Planning Area.

The circulation pattern would change in Downtown with the proposed two-way conversion of several existing one-way streets in the Planning Area. Two couplets would be converted back to two-way travel, creating a less confusing circulation pattern, providing more direct routes to downtown destinations, allowing easier access and increasing exposure to businesses for passing motorists. The Specific Plan also includes recommendations for enhancing the north-south and east-west connectivity of the bicycle network within the vicinity of the Planning Area. The proposed bicycle system would include a pedestrian/bike undercrossing, a shared-use path, and new bike lanes.

Public Improvement and Facilities

Several infrastructure improvement projects are proposed within the vicinity of the Planning Area, which relate to public access, utilities, and capital improvements. Examples of these improvements include sustainable measures to reduce stormwater runoff and water use; upgrades to the water supply system, sanitary sewer system and storm drainage system, a new parking structure, plaza upgrades and pedestrian/bicycle crossing improvements as mentioned above.

E. Proposed Project Impacts

As provided by the CEQA *Guidelines* § 15123(b)(1), an EIR must provide a summary of the impacts, mitigation measures and significant impacts after mitigation for the proposed project. This information is provided in Table 2-1 at the end of this chapter as determined in Chapter 4 of this Draft Program EIR. The proposed project would result in significant and unavoidable impacts with respect to air quality, GHG emissions and traffic and transportation:

Impact 4.B-1: Development facilitated by the Specific Plan would result in increased long-term emissions of criteria pollutants from increased vehicle traffic and onsite area sources. (Population growth exceeds vehicle miles traveled)

Impact 4.B-4: Growth from development facilitated by the Specific Plan would be fundamentally inconsistent with the growth assumptions of the *Bay Area 2010 Clean Air Plan*. (Population growth exceeds vehicle miles traveled)

Impact 4.B-5: Development facilitated by the Specific Plan would generate greenhouse gas (GHG) emissions that may have a significant effect on the environment.

Impact 4.B-6: The Specific Plan could potentially conflict with applicable plans, policies or regulations of an agency with jurisdiction over the Specific Plan adopted for the purpose of reducing the emissions of GHGs.

Impact 4.L-1: Traffic generated by development facilitated by the Specific Plan would affect levels of service at study intersections under Existing plus Project conditions.

- SR 29 Northbound Off-ramp / First Street

Impact 4.L-2: Traffic generated by development facilitated by the Specific Plan would affect levels of service at study intersections under Cumulative plus Project conditions.

- Silverado Trail / Third Street / East Avenue / Coombsville Road
- SR 29 Northbound Off-ramp / First Street

The remaining impact areas of aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, recreation and open space, and utilities and service systems would be mitigated (when appropriate) to less than significant levels.

F. Alternatives to the Proposed Project

As discussed in Chapter 5, the alternatives to the proposed project, with the exception of the mandatory No Project Alternative, were selected due to their potential to achieve basic project objectives and to lessen or avoid significant environmental effects of the proposed project discussed in the EIR. The alternatives considered in the analysis include:

Alternative 1: No Project

Under the No Project Alternative, development in the Planning Area would occur pursuant to the existing City of Napa 2020 General Plan and zoning designations currently in place. Therefore, in Section D, the impacts of growth that would occur with buildout of the proposed Specific Plan are compared to the impacts that would occur if the existing 2020 General Plan were implemented in the Planning Area. Under 2020 General Plan buildout and zoning, the buildout development capacity potential in the Planning Area would include the continued mix of uses in all districts, whereas the proposed Specific Plan specifies the mix and location of mixed uses that could be developed in specific areas of the downtown. Specifically, compared to the Specific Plan, the 2020 General Plan would allow more overall development in Downtown, but without a land use strategy that is context sensitive (it would not concentrate development in the core and reduce allowable densities to provide a transition to adjacent neighborhoods). As a result, the buildout capacity under the 2020 General Plan or the No Project Alternative is 3,259,037 square feet, or approximately 300,000 square feet greater than the buildout capacity of the proposed Specific Plan.[1]

Additionally, the No Project would not include additional hotel rooms. Existing development regulations, standards and guidelines would continue to apply to development in the Planning Area, and fewer circulation and streetscape improvements and public space facilities would be implemented, as proposed under the 2020 General Plan. As indicated in Table 5-1, the conversion of east-west streets from one-way to two-way would not to occur under the No Project Alternative. Additionally, the opening Coombs Street Plaza to vehicular traffic and reconnecting parts of the street grid with the redevelopment of the Town Center would not occur with the No Project Alternative. Also, unlike the proposed Specific Plan, the 2020 General Plan does not explicitly promote live/work space in the Oxbow area, encourage conversion of residential structures used for commercial and office to convert back to residential uses, or propose new specific development standards and programs to increase historic preservation in the Planning Area.

Alternative 2: Reduced Development

Under the Reduced Development Alternative, all land uses in the Specific Plan would be developed but would be reduced by 25 percent, with the exception of the hotel use which would remain the same as proposed by the Specific Plan. This Alternative assumes the circulation and streetscape improvements and public space facilities proposed under the Specific Plan would be implemented, even though the reduced amount of potential private development could likely

[1] Total buildout capacity of the Specific Plan is approximately 3,095,355, considering the floor area conversions for residential units and hotel rooms indicated in Table 5-1.

result in less impact fee revenue and associated funding resources for certain public improvements, which could reduce the number of public improvements that could be realized. The Reduced Development Alternative was selected as a reasonable and feasible alternative as it maintains the overall land use mix, consistent with the project objectives, albeit to a lesser extent.

Alternative 3: Reduced Office and Housing

Under the Reduced Office and Housing Alternative, all land uses in the Specific Plan would be developed in the Planning Area, however, residential development would be reduced by 25 percent and office development would be reduced by 40 percent; commercial and hotel development would be the same as proposed in the Specific Plan. Under this alternative, the building regulations, standards and guidelines would be as proposed in the Specific Plan, as would the proposed circulation and streetscape improvements and public space facilities. While the reduced amount of potential private development could likely result in less impact fee revenue and associated funding resources for public improvements, which could reduce the number of public improvements that could be realized, the worst case environmental effects associated with implementation and operation of the proposed public improvements and facilities are considered to ensure a conservative analysis. Overall, the Reduced Office and Housing Alternative aligns with the project objectives by maintaining the overall land use mix and reflecting the City's priority land use goals to increase residential, commercial and hotel use in the Planning Area.

Alternative 4: Additional Hotel

Under the Additional Hotel Alternative, all land uses in the Specific Plan would be developed but an additional 200-room hotel would replace 167,000 square feet of office space envisioned in the Specific Plan buildout Comparison to. With the exception of the reduced office space and additional hotel, all other uses which would remain the same as proposed by the Specific Plan. Under this alternative, the proposed building regulations, standards and guidelines proposed in the Specific Plan would apply in the Planning Area. This Alternative assumes the circulation and streetscape improvements and public space facilities proposed under the Specific Plan would be implemented, even though the reduced amount of potential private development could likely result in less impact fee revenue and associated funding resources for certain public improvements, which could reduce the number of public improvements that could be realized. Specifically, all the circulation changes proposed by the Specific Plan are assumed for the Additional Hotel Alternative, including the conversion of east-west streets from one-way to two-way, opening Coombs Street Plaza to vehicular traffic and reconnecting parts of the grid with the redevelopment of the Town Center. The worst case environmental effects associated with implementation and operation of the proposed public improvements and facilities are considered to ensure a conservative analysis.

G. Areas of Controversy

Section 15123(b)(2) of the CEQA *Guidelines* require that an EIR summary identify areas of controversy known to the lead agency, including those issues raised by other agencies and the

public. The analysis in this EIR indicates that air emissions from increased traffic would exceed applicable significance thresholds, and vehicle operations would significantly decrease service levels for certain intersections. As a result, impacts would be significant and unavoidable, even after incorporation of mitigation measures. As a result, issues related to local air quality, GHG emissions and traffic impacts are potential areas of controversy.

H. Issues to be Resolved

Section 15123(b)(3) of the CEQA *Guidelines* requires that an EIR present the issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects. The major issues to be resolved for the proposed project include decisions by the City of Napa, as the Lead Agency, as to whether:

- This Program EIR adequately describes the environmental impacts of the proposed project;
- Recommended mitigation measures should be adopted or modified;
- Additional mitigation measures need to be applied to the proposed project;
- Feasible alternatives exist that would achieve the project's objectives and would reduce potentially significant environmental impacts;
- Significant and unavoidable impacts would occur if the project is implemented; and
- The proposed project should or should not be approved.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.A Aesthetics		
Impact 4.A.1: Development facilitated by the Specific Plan could potentially alter views along certain corridors.	None Required.	
Impact 4.A-2: Development facilitated by the Specific Plan could potentially result in substantial adverse impacts to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within state scenic highways.	None Required.	
Impact 4.A-3: Development facilitated by the Specific Plan could potentially change the visual character of the Planning Area.	None Required.	
Impact 4.A-4: Development facilitated by the Specific Plan could potentially construct new buildings and street lighting within the Planning Area and increase light and glare.	None Required.	
Impact 4.A-5: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future projects, could potentially result in cumulatively considerable impacts to aesthetic resources.	None Required.	
4.B Air Quality and Greenhouse Gases		
Impact 4.B.1: Development facilitated by the Specific Plan could potentially result in increased long-term emissions of criteria pollutants from increased vehicle traffic and onsite area sources.	**Mitigation Measure 4.B-1:** In order to be consistent with the MSM A-1 and MSM A-2 transportation control measures (TCMs) listed in Table 4.B-4, the City shall require that the following measures be included as potential Transportation Demand Management (TDM) strategies to be implemented by individual project applicants, where feasible and appropriate: • Install charging units for electric vehicles at residences and businesses. • Develop incentives for businesses to include preferential parking for electric and/or hybrid vehicles.	Significant and Unavoidable.
Impact 4.B-2: Development facilitated by the Specific Plan could potentially expose existing and proposed sensitive receptors to substantial levels of toxic air contaminants (TACs), which may lead to adverse health effects.	**Mitigation Measure 4.B-2:** The City shall ensure that the Specific Plan design guidelines and development standards incorporate the following measures to reduce or avoid exposure of sensitive receptors to TACs: For construction activities, measures may include, but not limited to, the following: • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.	Less than Significant.

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.B Air Quality and Greenhouse Gases		
Impact 4.B-2 (cont.)	• Use new diesel engines that are designed to minimize DPM emissions (usually through the use of catalyzed particulate filters in the exhaust), or retrofitting older engines with catalyzed particulate filters which would reduce up to 85 percent of DPM emissions. For operational activities, in order to comply with the *Air Quality and Land Use Handbook: A Community Health Perspective* (ARB 2005) and achieve an acceptable interior air quality level for sensitive receptors, appropriate measures, shall be incorporated into residential building design. For projects to be developed under the Specific Plan that include residential receptors within 1,000 feet of a source of TACs (stationary or CNR railroad), the appropriate measures shall include one of the following methods: 1. The project applicant shall retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the ARB and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents to TACs prior to issuance of a demolition, grading, or building permit. The HRA shall be submitted to the Planning Division for review and approval. The applicant shall implement the approved HRA recommendations, if any. If the HRA concludes that the air quality risks from nearby sources are at or below acceptable levels, then additional measures are not required. 2. The project applicant shall implement the following features that have been found to reduce the air quality risk to sensitive receptors and shall be included in the project construction plans. These shall be submitted to the Planning Division and the Building Division for review and approval prior to the issuance of a demolition, grading, or building permit and ongoing. a. Do not locate sensitive receptors near distribution center's entry and exit points. b, Do not locate sensitive receptors in the same building as a perchloroleythene dry cleaning facility. c. Maintain a 50' buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year). d. Install, operate and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, that meets the efficiency standard of the MERV 13. The HV system shall include the following features: Installation of a high efficiency filter and/or carbon filter to filter particulates and other chemical matter from entering the building. Either HEPA filters or ASHRAE 85% supply filters shall be used.	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.B Air Quality and Greenhouse Gases		
Impact 4.B-2 (cont.)	e. Retain a qualified HV consultant or HERS rater during the design phase of the project to locate the HV system based on exposure modeling from the mobile and/or stationary pollutant sources. f. Maintain positive pressure within the building. g. Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air. h. Achieve a performance standard of at least 4 air exchanges per hour of recirculation i. Achieve a performance standard of 0.25 air exchanges per hour of in unfiltered infiltration if the building is not positively pressurized. j. Project applicant shall maintain, repair and/or replace HV system or prepare an Operation and Maintenance Manual for the HV system and the filter. The manual shall include the operating instructions and maintenance and replacement schedule. This manual shall be included in the CC&R's for residential projects and distributed to the building maintenance staff. In addition, the applicant shall prepare a separate Homeowners Manual. The manual shall contain the operating instructions and maintenance and replacement schedule for the HV system and the filters. It shall also include a disclosure to the buyers of the air quality analysis findings.	
Impact 4.B-3: Development facilitated by the Specific Plan could potentially create objectionable odors affecting a substantial number of people.	**Mitigation Measure 4.B-3:** The City shall ensure that the Specific Plan design guidelines and development standards incorporate the following measures to reduce or avoid exposure of sensitive receptors to odors during development under the Specific Plan: • Consider the odor-producing potential of land uses when the exact type of facility that would occupy areas zoned for commercial or mixed-use land uses is determined. Facilities that have the potential to emit objectionable odors would be located with appropriate buffers from existing and proposed sensitive receptors. • Identify odor control devices within building permit applications to mitigate the exposure of receptors to objectionable odors if a potential odor-producing source is to occupy the Planning Area. The identified odor control devices would be installed before the issuance of certificates of occupancy for the potentially odor-producing use.	Less than Significant.
Impact 4.B-4: Growth from development facilitated by the Specific Plan could potentially be fundamentally inconsistent with the growth assumptions of the *Bay Area 2010 Clean Air Plan*.	**Mitigation Measure:** Implement Mitigation Measure 4.B-1 to ensure consistency with the BAAQMD TCMs to promote clean, fuel efficient and zero emission vehicles.	Significant and Unavoidable.

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.B Air Quality and Greenhouse Gases		
Impact 4.B-5: Development facilitated by the Specific Plan would generate greenhouse gas (GHG) emissions that may have a significant effect on the environment.	**Mitigation Measure 4.B-5:** The City shall ensure that applicant(s) for individual projects to be developed under the Specific Plan would incorporate Green Building and Development Measures as listed in Appendix D (AIR-2). Each increment of new development under the Specific Plan requiring a discretionary approval from the City (e.g., proposed tentative subdivision map, conditional use permit), would demonstrate that GHG emissions from operation would be reduced by 30 percent from business-as-usual 2020 emissions levels, in order to achieve 1990 levels by 2020.	Significant and Unavoidable.
Impact 4.B-6: The Specific Plan could potentially conflict with applicable plans, policies or regulations of an agency with jurisdiction over the Specific Plan adopted for the purpose of reducing the emissions of GHGs.	**Mitigation Measure:** Implement Mitigation Measure 4.B-5 to reduce GHGs.	Significant and Unavoidable.
4.C Biological Resources		
Impact 4.C.1: Development facilitated by the Specific Plan could potentially have a substantial effect on any species identified as a threatened, endangered, candidate, sensitive, or special-status species.	**Mitigation Measure 4.C.1a:** The City shall ensure that the Specific Plan design guidelines and development standards incorporate the following measures to reduce or avoid impacts to fish species: • Avoid, reduce, or compensate for indirect impacts to fish species; for example, removal of riparian vegetation would require compensatory shade plantings. • Design creek and river crossings so as to maintain connectivity and allow for unimpeded flow of water, and if at all possible avoid building piers or footings within the channel. **Mitigation Measure 4.C-1b:** Pre-Construction Special-Status Avian Surveys. No more than two weeks in advance of any tree or shrub pruning, removal, or ground-disturbing activity that will commence during the breeding season (February 1 through August 31), a qualified wildlife biologist will conduct pre-construction surveys of all potential special-status bird nesting habitat in the vicinity of the planned activity. Pre-construction surveys are not required for construction activities scheduled to occur during the non-breeding season (August 31 through January 31). Construction activities commencing during the non-breeding season and continuing into the breeding season do not require surveys (as it is assumed that any breeding birds taking up nests would be acclimated to project-related activities already under way). Nests initiated during construction activities would be presumed to be unaffected by the activity, and a buffer zone around such nests would not be necessary. However, a nest initiated during construction cannot be moved or altered. *If pre-construction surveys indicate that no nests of special-status birds are present or that nests are inactive or potential habitat is unoccupied:* no further mitigation is required.	Less than Significant.

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.C Biological Resources (cont.)		
Impact 4.C.1 (cont.)	*If active nests of special-status birds are found during the surveys:* implement Mitigation Measure 4.C-1c. **Mitigation Measure 4.C-1c:** Avoidance of active nests. If active nests of special-status birds or other birds are found during surveys, the results of the surveys would be discussed with the California Department of Fish and Game and avoidance procedures will be adopted, if necessary, on a case-by-case basis. In the event that a special-status bird or protected nest is found, construction would be stopped until either the bird leaves the area or avoidance measures are adopted. Avoidance measures can include construction buffer areas (up to several hundred feet in the case of raptors), relocation of birds, or seasonal avoidance. If buffers are created, a no disturbance zone will be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted will take into account factors such as the following: 1. Noise and human disturbance levels at the Plan area and the nesting site at the time of the survey and the noise and disturbance expected during the construction activity; 2. Distance and amount of vegetation or other screening between the Plan area and the nest; and 3. Sensitivity of individual nesting species and behaviors of the nesting birds.	
Impact 4.C-2: Development facilitated by the Specific Plan could potentially have a substantial effect on habitat (including habitats for rare and endangered species as defined by the California Fish and Game Code or other sensitive natural communities identified in local or regional plans, polices, regulations, or lists complied by CDFG or USFWS.	None Required.	
Impact 4.C-3: Development facilitated under the Specific Plan could potentially interfere with the movement of native resident or migratory fish or wildlife species, with established migration or dispersal corridors, or with the use of native wildlife nursery sites.	**Mitigation Measure 4.C-3:** Implement Mitigation Measures 4.C-1a and 4.C-1b.	Less than Significant.
Impact 4.C-4: Development facilitated by the Specific Plan could potentially alter urban land uses and adversely affect wetlands, streams, or riparian habitat.	None Required.	
Impact 4.C-5: Development facilitated by the Specific Plan could potentially alter urban land and could conflict with local plans or ordinances, or any applicable habitat conservation plan or natural community plan.	None Required.	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.C Biological Resources (cont.)		
Impact 4.C-6: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future projects, could potentially result in minimal direct mortality and loss of habitat for special-status species, wetlands, and waters of the U.S.	None Required.	
4.D Cultural Resources		
Impact 4.D.1: Development facilitated by the Specific Plan could potentially have a significant impact on historic architectural resources.	**Mitigation Measure 4.D-1:** The City shall require that any future development under the Specific Plan to meet the intent and goals of the City of Napa Downtown Historic Design Guidelines. This includes any project that would alter historic resources or would be constructed adjacent to a historic resource. Alternatively, the General Plan shall include a new policy (**Policy XXX**) which requires that any development in the Downtown Area adhere to the goals identified in the City of Napa Downtown Historic Design Guidelines.	Less than Significant.
Impact 4.D-2: Development facilitated by the Specific Plan could potentially affect Napa's Native American archaeological resources.	**Mitigation Measure 4.D-2a:** When specific projects are proposed under the Specific Plan that involves ground-disturbing activity into native soils, the City's "Pastfinder" archaeological database shall be consulted. Recommendations provided by the "Pastfinder" database shall be implemented based on a parcel's archaeological sensitivity. In those cases where a site-specific cultural resources study is necessary, it shall be performed by qualified cultural resources professional. The study will include an updated records search, pedestrian survey of the project area, development of a historic context, sensitivity assessment for buried prehistoric and historic-period deposits, and preparation of a technical report that meets federal and state requirements. If significant resources are identified and cannot be avoided, treatment plans will be developed in consultation with the City and Native American representatives to mitigate potential impacts to less than significant. **Mitigation Measure 4.D-2b:** Should any archaeological artifacts be found during construction in the Planning Area, all construction activities within 50 feet shall immediately halt and the City must be notified. A qualified archaeologist shall inspect the findings within 24 hours of the discovery. If the site is determined to contain significant cultural resources, funding will be provided to identify, record, report, evaluate, and recover the resources as necessary. Construction within the area of the find shall not recommence until impacts on the historical or unique archaeological resource are mitigated. Additionally, Public Resources Code § 5097.993 stipulates that a project sponsor must inform project personnel that collection of any Native American artifact is prohibited by law.	Less than Significant.

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.D Cultural Resources (cont.)		
Impact 4.D-3: Development facilitated by the Specific Plan could potentially adversely affect unidentifiable paleontological resources.	**Mitigation Measure 4.D-3:** Prior to the start of any subsurface excavations that would extend beyond previously disturbed soils, all construction forepersons and field supervisors shall receive training by a qualified professional paleontologist, as defined by the Society of Vertebrate Paleontology (SVP), who is experienced in teaching non-specialists, to ensure they can recognize fossil materials and will follow proper notification procedures in the event any are uncovered during construction. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying a qualified paleontologist, who will evaluate its significance. Training on paleontological resources will also be provided to all other construction workers, but may involve using a videotape of the initial training and/or written materials rather than in-person training by a paleontologist. If a fossil is determined to be significant and avoidance is not feasible, the paleontologist will develop and implement an excavation and salvage plan in accordance with SVP standards.	Less than Significant.
Impact 4.D-4: Development facilitated by the Specific Plan could potentially disturb any human remains, including those interred outside of formal cemeteries.	**Mitigation Measure 4.D-4:** The treatment of any human remains and associated or unassociated funerary objects discovered during soil-disturbing activities shall comply with applicable state laws. Such treatment would include immediate notification of the Napa County Coroner. In the event of the coroner's determination that the human remains are Native American, the coroner shall notify of the Native American Heritage Commission, which would appoint a Most Likely Descendant (MLD) (PRC § 5097.98). The archaeological consultant, the Event Authority, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects (CEQA Guidelines § 15064.5[d]). The agreement would take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. The PRC allows 48 hours to reach agreement on these matters. If the MLD and the other parties could not agree on the reburial method, the Event Authority shall follow Section 5097.98(b) of the PRC, which states that "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."	Less than Significant.
Impact 4.D-5: Development facilitated by the Specific Plan, in combination with past, present, existing, approved, pending, and reasonably foreseeable future development that would involve demolition of historical resources in the vicinity of the Planning Area, could potentially form a significant cumulative impact to historical resources.	Implement Measure 4.D-1.	Less than Significant.

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.D Cultural Resources (cont.)		
Impact 4.D-6: Construction resulting from development facilitated by the Specific Plan, in combination with construction from other past, present, existing, approved, pending, and reasonably foreseeable future development in the vicinity, could potentially cause a significant cumulative impact to currently unknown cultural resources at the site, potentially including an archaeological resource pursuant to CEQA *Guidelines* § 15064.5 or CEQA § 21083.2(g), or the disturbance of any human remains, including those interred outside of formal cemeteries, as well as paleontological resources.	Implement Measures 4.D-2, 4.D-3, 4.D-4.	Less than Significant.
4.E Geology and Soils		
Impact 4.E.1: Development facilitated by the Specific Plan could potentially involve grading and other ground-disturbing construction activities, which could expose soils to erosion and loss of topsoil.	None Required.	
Impact 4.E-2: In the event of a major earthquake in the region, ground shaking and associated secondary effects, such as localized liquefaction, could potentially cause damage, destruction or injury to development and persons resulting from development facilitated by the Specific Plan.	None Required.	
Impact 4.E-3: Development facilitated by the Specific Plan could potentially be subjected to geologic hazards, including expansive soils, settlement, and differential settlement.	None Required.	
Impact 4.E-4: Development facilitated by the Specific Plan, combined with other past, present, existing, approved, pending, and reasonably foreseeable future development in the surrounding region, could potentially result in cumulative impacts to geologic and seismic hazards.	None Required.	
4.F Hazards and Hazardous Materials		
Impact 4.F-1: Existing structures demolished to allow for development facilitated by the Specific Plan could contain hazardous building materials, such as lead-based paint, asbestos-containing materials (ACMs), or polychlorinated biphenyls (PCBs), which could potentially expose and adversely affect workers, the public, or the environment if not handled appropriately.	None Required.	
Impact 4.F-2: Development facilitated by the Specific Plan would include increased commercial, retail, and hotel land uses that could involve the transportation, use, and storage of hazardous	None Required.	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.F Hazards and Hazardous Materials (cont.)		
chemicals, which could potentially present public health and/or safety risks to facility workers, residents, and visitors, and the surrounding area.		
Impact 4.F-3: Construction facilitated by the Specific Plan could potentially 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.	None Required.	
Impact 4.F-4: Development facilitated by the Specific Plan on land previously impacted by releases of hazardous materials, such as from underground fuel storage tanks, could potentially expose residents or workers to hazardous materials or wastes.	None Required.	
Impact 4.F-5: Development facilitated by the Specific Plan, combined with other past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could potentially result in cumulative hazards or hazardous materials impacts.	None Required.	
4.G Hydrology and Water Quality		
Impact 4.H-1: Development facilitated by the Specific Plan could potentially violate water quality standards, violate waste discharge requirements, or otherwise degrade water quality by increasing nonpoint source pollutants in stormwater runoff.	None Required.	
Impact 4.H-2: Development facilitated by the Specific Plan could potentially alter existing drainage patterns, causing downstream erosion, siltation, or flooding.	None Required.	
Impact 4.H-3: Development facilitated by the Specific Plan could potentially place housing or structures in the floodplain that would expose people to a substantial risk of loss, injury or death.	None Required.	
Impact 4.H-4: Development facilitated by the Specific Plan could potentially expose people or structures to risk of flooding due to the failure of a dam.	None Required.	
Impact 4.H-5: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future plans and project in the vicinity, could potentially introduce additional non-point source pollutants to surface waters.	None Required.	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.H Land Use and Planning		
Impact 4.H-1: Development facilitated by the Specific Plan could potentially result in the physical division of an established community.	None Required.	
Impact 4.H-2: The Specific Plan could potentially conflict with applicable land use plans or policies adopted for the purpose of avoiding or mitigating an environmental effect.	None Required.	Less than Significant.
Impact 4.H-3: Implementation of the Specific Plan could potentially conflict with any applicable habitat conservation plan or natural community conservation plan.	None Required.	Less than Significant.
Impact 4.H-4: Development facilitated by the Specific Plan, combined with other past, present, existing, approved, pending, and reasonably foreseeable future plans or projects in the area, could potentially result in a significant adverse cumulative land use impact.	None Required.	Less than Significant.
4.I Noise		
Impact 4.I-1: Development facilitated by the Specific Plan could potentially result in substantial temporary or periodic increases in ambient noise levels in the Planning Area.	**Mitigation Measure 4.I-1a:** Construction contractors for subsequent development projects within the Planning Area shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, etc.) when within 400 feet of sensitive receptor locations. Additional techniques shall include, but not be limited to the following noise control elements: • Non-residential construction project activities (Monday through Friday) shall be limited to the hours of 7:00 a.m. to 7:00 p.m. with no start up of machines or equipment prior to 8 a.m. No delivery of materials nor equipment shall occur prior to 7:30 a.m. or after 5:00 p.m. No cleaning of machines or equipment shall occur after 6:00 p.m. No servicing of equipment shall occur past 6:45 p.m. Construction of weekends and holidays shall be limited to the hours of 8:00 a.m. to 4:00 p.m., unless a permit allows otherwise. • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler shall achieve lower noise levels from the exhaust by approximately 10 dBA. External jackets on the tools themselves shall be used where feasible in order to achieve a reduction	Less than Significant.

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.I Noise (cont.)		
Impact 4.I-1 (cont.)	of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible; • All construction equipment shall not be placed adjacent to developed areas unless said equipment is provided with acoustical shielding. • Signs shall be posted at all construction site entrances to the property upon commencement of project construction, for the purposes of informing all contractors and subcontractors, their employees, agents, materialmen, and all other persons at the construction site, of the basic requirements of Mitigation Measures 4.1-a through 4.1-c. **Mitigation Measure 4.I-1b:** Should pile-driving be necessary for a proposed project, the project sponsor would require that the construction contractor limit pile driving activity to the least disturbing hours of the day. To further mitigate pile driving and/or other extreme noise-generating construction impacts, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. No extreme noise-generating activities shall be allowed on weekends and holidays. Techniques included may include but not be limited to the following: • Erect temporary plywood noise barriers around the construction site, • Implement "quiet" pile-driving technology (such as pre-drilling of piles and the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; • Use noise control blankets on building structures as buildings are erected to reduce noise emission from the site; • Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings; and • Monitor the effectiveness of noise attenuation measures by taking noise measurements. **Mitigation Measure 4.I-1c:** The City shall condition approval of projects in the Planning Area near receptors sensitive to construction noise, such as residences and schools, such that, in the event of a justified complaint regarding construction noise, the City would have the ability to require changes in the construction practices to address the noise complaints.	
Impact 4.I-2: Development facilitated by the Specific Plan could potentially increase ambient noise levels along roadways within the Planning Area due to greater auto and truck traffic volumes.	None Required.	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.I Noise (cont.)		
Impact 4.I-3: Development facilitated by the Specific Plan could potentially result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	**Mitigation Measure 4.I-3:** Groundborne vibration exposure to proposed Specific Plan residences within 200 feet of the mainline track shall be analyzed in a detailed vibration study by a qualified acoustical engineer to determine if vibration isolation shall be required in building design, such as supporting the new building foundations on elastomer pads similar to bridge bearing pads. The results of each study shall be submitted to the City prior to project approval.	Less than Significant.
Impact 4.I-4: Development facilitated by the Specific Plan, along with other past, present, existing, approved, pending, and reasonably foreseeable future development in the vicinity, could potentially result in an increase traffic noise conflicts.	None Required.	
4.J Population and Housing		
Impact 4.J-1: Development facilitated by the Specific Plan could potentially induce growth in population and employment in the Planning Area.	None Required.	
Impact 4.J-2: Development facilitated by the Specific Plan could potentially displace existing housing or people such that construction of replacement housing elsewhere would be required.	None Required.	
Impact 4.J-3: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could potentially result in cumulative impacts to population and housing.	None Required.	
4.K Recreation and Open Space		
Impact 4.K-1: Development facilitated by the Specific Plan could potentially increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration would occur, or require the construction or expansion of recreational facilities.	None Required.	
Impact 4.K-2: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future projects within and around Downtown, could potentially result in an increased demand for recreational facilities.	None Required.	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.L Transportation and Traffic		
Impact 4.L-1: Traffic generated by development facilitated by the Specific Plan could potentially affect levels of service at study intersections under Existing plus Project conditions.	None Available.	Significant and Unavoidable.
Impact 4.L-1a: Traffic generated by development facilitated by the Specific Plan would cause the unsignalized intersection of SR 29 Northbound Off-ramp / First Street to continue to operate below acceptable levels of service in the AM and PM peak hours with an increase greater than the threshold of significance (50 project-generated trips).	**Mitigation Measure 4.L-1a:** The City shall continue to coordinate with Caltrans to install a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street or identify other acceptable alternatives to the signal. If the signal pursued, the City shall work closely with Caltrans to ensure that the signal timing is properly synchronized with the closely spaced intersection to the east at California Boulevard / First Street.	The City can continue to work with Caltrans to install a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street, which would allow the intersection to operate at acceptable level of service. However, previous discussions with Caltrans indicate that this improvement would be difficult to approve, as installation of a traffic signal would require a design exception due to the close spacing (approximately 350 feet) to the California Boulevard / First Street intersection to the east, which is unlikely to be granted. Therefore, even with Mitigation Measure 4.L-1a, this project impact would be significant and unavoidable, because it is not likely that signalization could be implemented by the City of Napa, as Lead Agency, without the approval of Caltrans. In the event that signalization could be implemented and the signal timing could be synchronized appropriately with the adjacent intersection to the east, the impact would be less than significant.
Impact 4.L-2: Traffic generated by development facilitated by the Specific Plan could potentially affect traffic levels of service at study intersections under Cumulative plus Project conditions.	None Available.	Significant and Unavoidable.
Impact 4.L-2a: Traffic generated by development facilitated by the Specific Plan could potentially cause the signalized intersection of Silverado Trail / Third Street / East Avenue / Coombsville Road to continue to operate below acceptable levels of service in the AM and PM peak hours with an increase greater than the threshold of significance (50 project-generated trips).	None Available.	Significant and Unavoidable.
Impact 4.L-2b: Traffic generated by development facilitated by the Specific Plan could potentially cause the unsignalized intersection of SR 29 Northbound Off-ramp / First Street to continue to operate below acceptable levels of service in the AM and PM peak hours with an increase greater than the threshold of significance (50 project-generated trips).	**Mitigation Measure 4.L-2b:** The City shall continue to coordinate with Caltrans to install a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street. In this case, the City shall work closely with Caltrans to ensure that the signal timing is properly synchronized with the closely spaced intersection to the east at California Boulevard / First Street.	Significant and Unavoidable. The City can continue to work with Caltrans to install a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street, which would allow the intersection to operate

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.L Transportation and Traffic (cont.)		
Impact 4.L-2b (cont.)		at acceptable level of service. However, previous discussions with Caltrans indicate that this improvement would be difficult to approve, as installation of a traffic signal would require a design exception due to the close spacing (approximately 350 feet) to the California Boulevard / First Street intersection to the east. Therefore, even with Mitigation Measure 4.L-2b, this project impact would be significant and unavoidable because it is not likely that signalization could be implemented by the City of Napa, as Lead Agency, without the approval of Caltrans. In the event that signalization could be implemented and the signal timing could be synchronized appropriately with the adjacent intersection to the east, the impact would be less than significant.
Impact 4.L-3: Development facilitated by the Specific Plan could potentially generate additional pedestrian, bicycle and transit trips, which would use the existing and planned circulation network in the Planning Area.	None Required.	
Impact 4.L-4: Development facilitated by the Specific Plan could potentially 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.	None Required.	
Impact 4.L-5: Development facilitated by the Specific Plan could potentially increase traffic volumes on area roadway segments, potentially causing conflicts among motor vehicles, bicycles, or pedestrians.	None Required.	
Impact 4.L-6: Development facilitated by the Specific Plan could potentially result in additional automobile, bicycle, and/or pedestrian traffic at the existing at-grade railroad crossings and potentially contribute to safety issues along the railroad crossings.	**Mitigation Measure 4.L-6:** This mitigation measure should be applied to developments under the Specific Plan that would generate substantial multi-modal trips crossing at-grade railroad crossings that could substantially increase hazards between incompatible uses (i.e., motor vehicles and trains, or pedestrians and trains): ***Transportation Impact Studies (TIS) for At-grade Railroad Crossings*** – The TIS, otherwise required to be prepared for proposed developments under this project, in accordance with standard City policies and practices, must evaluate potential impacts to at-grade railroad crossings resulting from	Less than Significant.

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.L Transportation and Traffic (cont.)		
Impact 4.L-6 (cont.)	project-related traffic. The TIS should examine whether the proposed project would generate substantial multimodal trips crossing at-grade railroad crossings that could substantially increase hazards between incompatible uses (i.e., motor vehicles and trains, pedestrians and trains), which may include a Diagnostic Review for each railroad crossing. If required, the Diagnostic Review must be completed with all affected properties and Stakeholders, in coordination with the California Public Utilities Commission (CPUC). It will include: roadway and rail descriptions; collision history; traffic volumes for all modes; train volumes; vehicular speeds; train speeds; and existing rail and traffic controls. Based on the Diagnostic Review and the number of projected trips, the TIS will evaluate if the proposed project increases hazards at the crossing. For example, vehicle traffic generated by the proposed project may cause vehicle queuing at intersections resulting in traffic spilling back onto at-grade railroad crossings. Where the TIS identifies substantially hazardous crossing conditions caused by the proposed project, mitigations relative to the project's contribution to the crossing as necessary shall be applied through project redesign and/or incorporation of improvements to reduce potential adverse impacts. Proposed improvements must be coordinated with CPUC and affected railroads and all necessary permits/approvals obtained, including a GO 88-B Request (Authorization to Alter Highway Rail Crossings). These improvements may include: • Installation of additional warning signage; • Improvements to warning devices at existing rail crossings; • Installation or improvement to automobiles and/or pedestrian control gates; • Installation of concrete panels to provide a smooth crossing surface; • Reduction in the flangeway gap to improve pedestrian and bicyclist safety; • Installation of median separation to prevent vehicles from driving around railroad crossings; • Improvements to traffic signaling at intersections adjacent to crossings (e.g., signal preemption); • Prohibition of parking within 100 feet of the crossings to improve the visibility of warning devices and approaching trains;	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.L Transportation and Traffic (cont.)		
Impact 4.L-6 (cont.)	• Where soundwalls, landscaping, buildings, etc. would be installed near crossings, maintain the visibility of warning devices and approaching trains; • Elimination of driveways near crossings; • Installation of vandal-resistant fencing or walls to limit the access of pedestrians onto the railroad right-of-way. This mitigation measure would be applied by the City on a development project (case-by-case) basis, as appropriate. The incorporation of improvements identified in this mitigation measure could reduce the project's impact to the at-grade railroad crossing to a less-than-significant level.	
Impact 4.L-7: Development facilitated by the Specific Plan could potentially generate services calls from emergency vehicles.	None Required.	
Impact 4.L-8: Implementation of the Specific Plan could potentially be inconsistent with adopted polices, plans, and programs supporting alternative transportation.	None Required.	
Impact 4.L-9: Development facilitated by the Specific Plan could potentially generate temporary increases in traffic volume and temporary effects on transportation conditions	None Required.	
4.M Utilities and Service Systems		
Impact 4.M-1: Development facilitated by the Specific Plan could potentially result in substantial adverse physical effects associated with the provision of new or physically altered police, fire, or school facilities, or the need for new or physically altered facilities.	None Required.	
Impact 4.M-2: Development facilitated by the Specific Plan could potentially have insufficient water supplies available to serve the development from existing entitlements.	None Required.	
Impact 4.M-3: Development facilitated by the Specific Plan could potentially result in wastewater service demands that would result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve projected demand or result in the construction of new or expanded wastewater treatment facilities.	None Required.	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.M Utilities and Service Systems (cont.)		
Impact 4.M-4: Development facilitated by the Specific Plan could potentially be served by a landfill with insufficient permitted capacity to accommodate solid waste generated by the project, and would comply with federal, state, and local statutes and regulations related to solid waste.	None Required.	
Impact 4.M-5: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future projects within and around Downtown Napa, could potentially result in an increased demand for utilities services.	None Required.	

CHAPTER 3
Project Description

A. Introduction

The proposed Downtown Napa Specific Plan will guide development-related decisions through its planning framework and policies to the horizon of 2035. The plan provides a long-term vision for Downtown, and identifies implementation policies, that direct how that vision may be achieved over the life of the document.

Purpose of the Specific Plan

California State Law authorizes cities with adopted general plans to prepare and adopt specific plans (in accordance with Government Code § 65450), if so directed by their legislative bodies, to use as an implementation tool between the general plan and individual development proposals. The specific plan normally combines zoning regulations, a capital improvement program, development standards, design guidelines, and other regulations or policies tailored to meet the needs of a specific planning area.

The specific plan must, by law, include a description of the following:

- The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.
- The proposed distribution, location, extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.
- Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.
- A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

Legal Authority and the Relationship of the Specific Plan to the Napa General Plan

Development in Napa is guided by the goals, objectives, and policies set forth in the City's General Plan which was adopted, as amended, by the Napa City Council in December 1998. The General Plan establishes policies for all land within the City.

The City of Napa would adopt the Downtown Napa Specific Plan under a procedure that is consistent with the General Plan and with the provisions of Article 8, Sections 65450 through 65457 of Title 7, Planning and Land Use Law, of the California Government Code. Subsequent projects within Downtown Napa (including tentative parcel/subdivision maps, use permits, design-review permits, and improvement plans) would need to be consistent with the Specific Plan and the General Plan. As stated in § 65454 a specific plan may not be adopted or amended unless the proposed plan or amendment is consistent with the general plan.

According to § 65453, a specific plan shall be prepared, adopted, and amended in the same manner as a general plan, except that a specific plan may be adopted by resolution or by ordinance and may be amended as often as deemed necessary by the legislative body. The Downtown Napa Specific Plan will be adopted as an amendment to the General Plan.

B. Regional Location and Planning Boundaries

Located in Northern California approximately 50 miles of San Francisco, the City of Napa is located at the southern end of the Napa Valley, as shown in **Figure 3-1**. State Route 29 runs north-south through the City of Napa, connecting to Vallejo and the East Bay Area to the south and the Napa Wine Country to the north. State Route 121 runs north-south along Silverado Trail east of Downtown and merges with State Route 29 on the southern edge of the City. State Route 12 runs to the south of the City, connecting to Fairfield and Interstate 80 to the east and Sonoma and U.S. Highway 101 to the west. The Napa River runs north-south through the City, starting in Mount St. Helena to the north, flowing south to San Pablo Bay and then to San Francisco Bay. Located on the Napa Valley floor and surrounded by rolling hills, the City's environs are predominantly rural and agricultural.

Downtown Specific Plan Planning Area

Within Napa, the Downtown area is located on the west bank of the Napa River, near a large meandering oxbow in the river's course. Downtown is in the central part of the City located between State Route 29 and State Route 121.

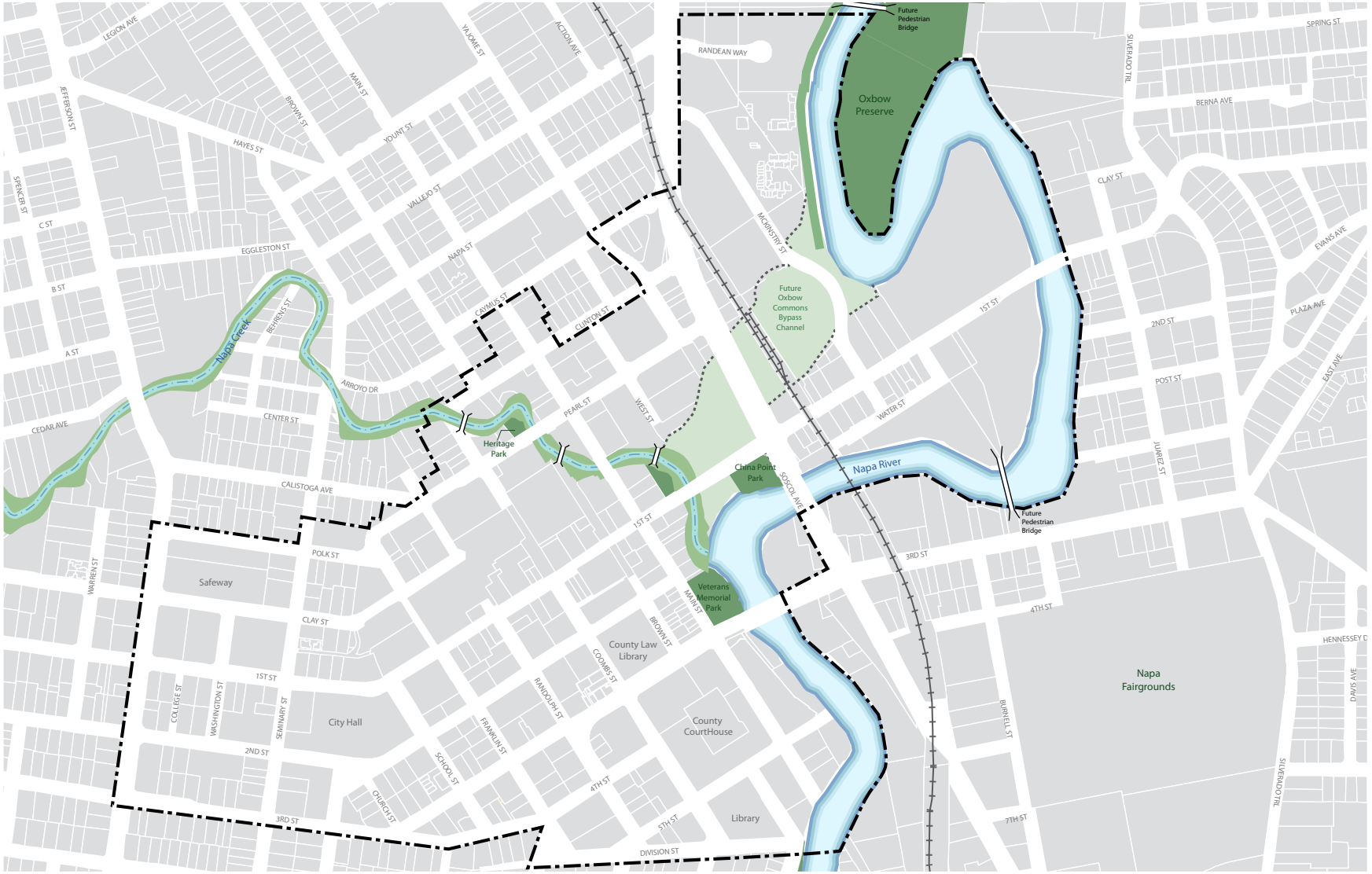
The Specific Plan Planning Area (Planning Area), which encompasses Downtown Napa, is bounded on the east by the eastern bank of the Napa River, on the south by Division and Third streets, and on the west by Jefferson Street. The northern boundary generally follows the edge of the "Downtown Commercial" zoning area boundary adjacent to northern residential neighborhoods along Polk and Caymus streets west of Soscol Avenue. The Planning Area boundaries extend east to include the Oxbow Market and former Copia area east of Soscol Avenue. The Planning Area encompasses approximately 210 acres (see **Figure 3-2**).

SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 3-1

Regional Context



SOURCE: MIG

Napa Downtown Specific Plan

Figure 3-2

Specific Plan Area Boundary

Project Setting

Existing Land Uses in the Planning Area

The Planning Area includes a diverse mix of local- and visitor-serving uses, such as retail, restaurant, office, cultural and entertainment, lodging and civic uses. Most of the Downtown core, west of Soscol Avenue, is a diverse range of commercial uses, ranging from small, local shops and restaurants to larger-format retail. Office uses are spread throughout Downtown, although several historic residential structures that have been converted to office uses are concentrated south of the commercial core. There are five hotels in Downtown in addition to a number of bed and breakfast inns located inside or near, but outside the Planning Area. Existing land uses in and surrounding the Planning Area are described in greater detail in Section 4.H, *Land Use and Planning*, of the Draft EIR.

The Planning Area contains several public facilities, including city and county administrative offices, the State Superior Courthouse, 4 public parking structures and the Napa Library. There are approximately 125 housing units within the Planning Area, consisting primarily of single-family houses, condominiums, and apartments. Residential neighborhoods are situated to the south, north, east, and west of the Downtown area. **Table 3-1** presents the existing number of residential units, square feet of commercial uses, and total number of hotel rooms currently within the Planning Area.

TABLE 3-1
DOWNTOWN NAPA EXISTING DEVELOPMENT

Land Use	
Residential	units
Single-family	31
Multi-family[a]	94
Total Residential Units	***125***
Commercial	square feet
Retail/Restaurants	1,094,824
Office	763,133
Hotels	rooms
Avia Hotel	141
Napa River Inn	66
River Terrace Inn	106
Westin Verasa	160
3 Palms Hotel	45
Blackbird Inn Bed and Breakfast	8
Total Hotel Rooms	***526***

[a] Includes 44 multi-family units in bldgs of 2 to 8 units and 50 condominiums in the Riverfront

SOURCE: MIG, Inc. (2011)

Existing General Plan Land Use Designations

The General Plan includes land use designations applicable to the Planning Area. Downtown falls within the *Downtown Commercial* land use designation which allows a mix of land uses, including retail, office, recreational, entertainment, and residential. The Oxbow District east of Soscol Avenue is designated *Mixed-Use*, which provides for a functionally-integrated mix of retail, commercial, office, possible light manufacturing, and attached residential uses.

The southern portion of the Planning Area is designated *Residential Office* which applies to mixed residential/office areas and provides for residential uses and offices oriented to business and professional services. Government and community uses in the Planning Area, such as the City Hall, County Complex, and the post office, are designated *Public Serving*.

Zoning Districts

The City's zoning districts correspond to the General Plan land use designations, but include further differentiation. Much of the City's historic commercial core is zoned *Downtown Commercial* which provides for a mix of development including retail, office uses, lodging, and public uses. The areas along First Street from Franklin to Main, the Town Center, and the west side of Main Street from First to Pearl Streets are zoned *Downtown Pedestrian Commercial*, which provides for a pedestrian-oriented retail center in the heart of the Downtown commercial area. The Oxbow area is zoned *Tourist Commercial*, which provides for uses that are oriented toward tourists and other visitors to the community. The southern portion of Downtown is designated as *Residential Office* in the General Plan and has a corresponding RO zoning. The RO designation applies to existing mixed residential and office areas, primarily along arterials and collectors. The properties designated as public-serving in the General Plan are zoned *Public/Quasi-Public*, and provide for community-serving uses such as government offices, open space and related community service facilities.

In addition to the base zoning districts, Downtown includes a number of overlay districts. These districts address technical and policy issues particular to different parts of Downtown. These include overlays for the parking exempt district, design guidelines for the Soscol Avenue/Riverfront area, the flood plain, historic preservation and high traffic corridors.

Natural Environment

Segments of the Napa River and Napa Creek run through Downtown. Portions of the Napa Creek are culverted; however, both the river and the creek are accessible along public greenways. The river and the creek serve as both recreational and biological resource amenities within Downtown. While the Planning Area is primarily developed, Napa River and Napa Creek provide wildlife movement corridors and riparian communities within an urban area.

Circulation

The primary local access gateways into Downtown from the surrounding neighborhoods and state highway system are First Street, Second Street, Soscol Avenue and Jefferson Street. Access from

the east side of Downtown is constrained by the Napa River and the limited bridge crossings at First and Third streets. An important feature in Downtown, and a focus for change in the Downtown Specific Plan, is the system of one-way streets creating one-way "couplets". One pair of arterials, First and Second streets, connect State Route 29 and central Downtown. A shorter pair of arterials, Third and Fourth streets, forms the southern boundary of the Planning Area.

The existing circulation network in Downtown is dominated by a pedestrian-scaled grid pattern and provides for multi-modal access. Sidewalks and pedestrian amenities are present throughout the Planning Area. The bicycle network extends throughout the City, with many routes traveling directly through the Planning Area. Several transit routes operate in Downtown and are well established because of the mix of land uses and the proximity of the transit center to the Planning Area.[1]

Infrastructure

Water service in the Planning Area is supplied by a 20-inch diameter transmission main that is connected to a five million gallon (MG) storage tank on the east side of the Napa River. This transmission line reduces to a 16-inch water line that feeds into smaller distribution mains that vary from 4 to 12 inches. The water distribution system consists primarily of 6-inch cast iron pipe. Pipes in Downtown are on average approximately 80 to 100 years old. Sanitary sewer lines in the Planning Area include 14- to 20-inch trunk lines connected to smaller collector lines. Most of these lines were constructed within the last 60 years. There is no recycled water infrastructure serving the Planning Area. Storm drainage pipes in Downtown generally range from 12- to 24-inches in diameter. Due to Downtown's adjacency to the Napa River and Napa Creek, the City's existing drainage system is challenged with localized flooding issues. This issue is discussed in greater detail in Section 4G, *Hydrology and Water Quality*, of this Draft EIR.

C. The Downtown Napa Specific Plan

Specific Plan Objectives

The Vision Statement of the Downtown Napa Specific Plan Specific Plan identifies the Objectives:

- Make Downtown Napa a wonderful, inviting and friendly place to live, work and visit.
- Revive Downtown as the primary job center in Napa.
- Celebrate Napa's rich history and agricultural heritage.
- Take advantage of the Napa River as a Downtown amenity and a setting for recreation, residential development, special-event venues and shopping.
- Provide a human-scale, pedestrian-friendly environment that is inviting to residents and visitors.

[1] The transit center will be relocated out of the Planning Area to Soscol Avenue between Fourth and Fifth streets.

- Encourage mixed-use development in Downtown to provide a range of housing options and densities, including housing above storefronts in the downtown core, stand-alone housing mixed with retail uses, services and offices in areas designated for mixed use, and housing in the transition areas adjacent to existing residential neighborhoods.

- Ensure sensitive transitions between the existing adjacent residential areas and the Downtown area.

- Foster neighborhood-serving uses in the areas transitioning between the downtown core, mixed-use areas, and residential neighborhoods adjacent to Downtown, such as corner markets, and provide for sufficient residential density to support these uses.

- Build on Napa's high-quality stock of historic structures to set the tone for downtown design.

- Promote the role of Downtown where civic buildings are concentrated and as the primary place where people come together to enjoy public art and culture, open spaces and public facilities.

- Place priority on high quality design in Downtown orienting buildings and entrances to the street and public gathering places, and the Napa River and Napa Creek as appropriate, and developing unique structures that complement their surroundings.

- Designate the downtown core as the location for Downtown's retail activities, supported by mixed retail, service, office and residential opportunities bordering the core in a mixed-use designation. Promote the concentration of activity-generating uses in the core area of Downtown, including retail shops, restaurants and entertainment venues.

- Create exciting, attractive and interesting new gateways to create a welcoming atmosphere to visitors to Downtown.

- Cultivate a convenient network of different modes of transportation in Downtown, including for pedestrians, bicyclists, public transportation, as well as cars.

- Create linkages to and between public gathering places, parks and the Napa River and Napa Creek for people to explore Downtown.

- Identify opportunity sites or "focus areas" where development could transform Downtown in a way that is consistent with the adopted vision and could serve as a catalyst to other development in Downtown.

- In the Downtown Core Commercial, promote commercial and retail growth over office land uses to make Downtown a destination for both residents and visitors.

- Provide opportunity for a hotel and conference center in Downtown that could serve as a catalyst to economic growth in the City.

- Meet General Plan requirements for multi-family housing by providing opportunity for residential development in Downtown.

As appropriate the Specific Plan Objectives are considered in the evaluation of alternatives to the Specific Plan (Chapter 5, Alternatives, of this EIR).

Specific Plan Characteristics

The purpose of the Specific Plan is to provide a comprehensive guide for future public and private investment in Downtown Napa crafted from a community-based vision. The Specific Plan is built on a strong base of General Plan policies focused on Downtown. Consistent with California State law, the Specific Plan includes detailed policies, design guidelines, development standards, and financing mechanisms.

The Specific Plan includes the following chapters:

1. Introduction
2. Existing Conditions
3. Vision Framework
4. Land Use and Zoning Designations
5. Design Guidelines
6. Circulation
7. Utilities
8. Implementation Plan

The first three chapters set the stage for the future of Downtown Napa by summarizing the existing conditions analysis and providing the visioning framework and development strategy for the Planning Area. Chapters 4 through 7 serve as the elements of the Specific Plan, include the specific development standards and design guidelines that were customized for the Specific Plan to create an environment the community has envisioned. Chapter 8 focuses on the economics and implementation of the Specific Plan, including costs, potential funding sources, General Plan and Zoning Ordinance amendments, and proposed plan and document updates.

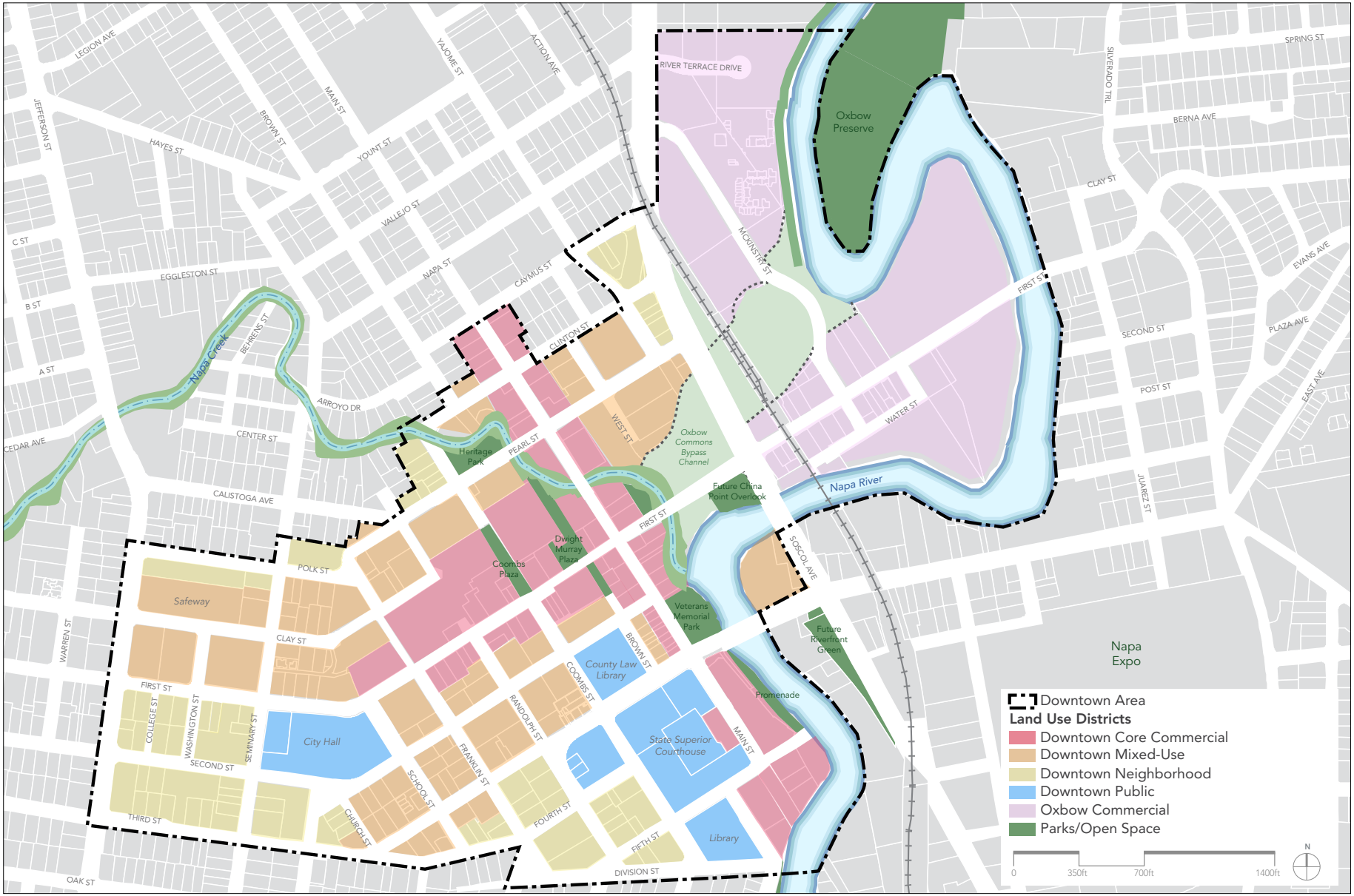
Land Use and Planning

Proposed Land Use Designations

The land use strategy for the Specific Plan would allow greater flexibility for a mix of uses in the Planning Area to promote a variety of commercial, housing, and entertainment uses in Downtown Napa. The Specific Plan would allow higher densities through increased building height limits in the core of Downtown, which are context sensitive in relation to adjacent historic structures and lower density residential areas.

The proposed land use map is presented in **Figure 3-3**. The following land use designations are established in the Specific Plan to regulate permitted uses specifically in Downtown:

The **Downtown Core Commercial** land use designation focuses on First Street from School Street to the Napa River, and Main Street from the Napa Mill to Caymus Street. The designation provides for a pedestrian-oriented retail center in the heart of the Downtown commercial area. The designation provides for a mix of active ground level retail and personal service uses, while office, residential, and other supporting uses are accommodated at upper levels.



SOURCE: MIG

Figure 3-3
Land Use Designations

The **Downtown Mixed-Use** land use designation applies to the blocks surrounding the Downtown Core Commercial area, generally from Fourth Street to the northern boundary of the Planning Area, and from Jefferson and Wilson streets east to the Napa River. The intent is to accommodate a mix of uses that is less intensive than in the Downtown Core Commercial area and more oriented to neighborhood needs. The Downtown Mixed-Use designation provides for retail; administrative and other offices; institutional, recreational, entertainment, arts and cultural uses; hotels and conference facilities; transportation facilities; public and quasi-public uses; and similar uses that strengthen Downtown's role as the community's center. The Downtown Mixed-Use designation also encourages residential uses in the Downtown primarily as part of a mixed-use development.

The **Oxbow Commercial** land use designation applies to the portion of the Planning Area to the east of Soscol Avenue. The Oxbow Commercial land use designation provides for uses oriented particularly toward tourists and other visitors to the community. The designation encourages lodging and its related amenities and recreational facilities, community and visitor-serving retail, commercial, entertainment, restaurants, and similar compatible uses, including artisanal food and beverage production. Visitor-serving retail uses that emphasize viticulture are also appropriate.

The **Downtown Neighborhood** land use designation applies to the blocks along the southern and western edges of the Planning Area, as well as Polk Street and a block north of Clinton Street. The Downtown Neighborhood designation is intended to create a transition between the more intensive, commercially-oriented uses in the center of Downtown and the residential neighborhoods that surround Downtown. It provides for a compatible mix of residential and office uses including residential uses, offices oriented to provision of business and professional services, live/work, residential/office mixed-use developments, bed and breakfast inns, and public and quasi-public uses. Building design is to be compatible with design characteristics of the surrounding neighborhood and must meet the design standards outlined in Chapter 5 of the Specific Plan.

The **Downtown Public** land use designation applies to the Napa County Courthouse complex and adjoining libraries, as well as Napa City Hall. The Downtown Public land use designation provides for public and quasi-public properties dedicated to community serving purposes, such as government offices and related community service facilities. The Downtown Public designation also provides for appropriately located public lands devoted to public open spaces and trails.

An **Entertainment District** would be created to encourage entertainment uses centered on Main Street between Clinton Street and the Napa Mill. Within the Entertainment District, a streamlined administrative permit process would allow for entertainment uses meeting designated performance standards.

The new land use designations would replace the existing General Plan designations, and as such, would require a General Plan Land Use Map Amendment. As discussed in the Section 4.H, *Land Use and Planning*, the proposed land use designations would replace the following current designations: the Downtown Pedestrian Commercial (CDP); the Oxbow District designation of Tourist Commercial (CT); the southern portion of Downtown designation of Residential Office (RO); and the Public/Quasi-Public (PQ-P) designation of the government and community uses.

Focus Areas

The Specific Plan also provides land use direction for three key "Focus Areas." These areas offer special opportunities to stimulate development and set the tone for future land use and development character in Downtown Napa. The three Focus Areas within the Planning Area are identified in **Figure 3-4**. The three Focus Areas are the Town Center (and adjacent shopping area), CineDome (and surrounding land), and former Copia property.

These areas differ from other areas within the Planning Area due to their size and character, land uses, vacancies, and location within the Downtown, and represent the highest concentration of opportunities for change. The Specific Plan provides descriptions and diagrams for the Focus Areas, which represent potential development scenarios and concepts. The descriptions and diagrams presented are not intended to represent design solutions. Design details would be created through specific development planning and refined through the design review process.

Development Standards

The Specific Plan outlines development standards which would shape the form and character of development within Downtown by promoting coordinated and cohesive site planning and design. Development potential would be regulated by the proposed Building Form Zones (illustrated in **Figure 3-5**) and set development standards for new development related to floor area ratio (FAR), density, parking requirements, setbacks, and height. The three Building Form Zones in the Planning Area include:

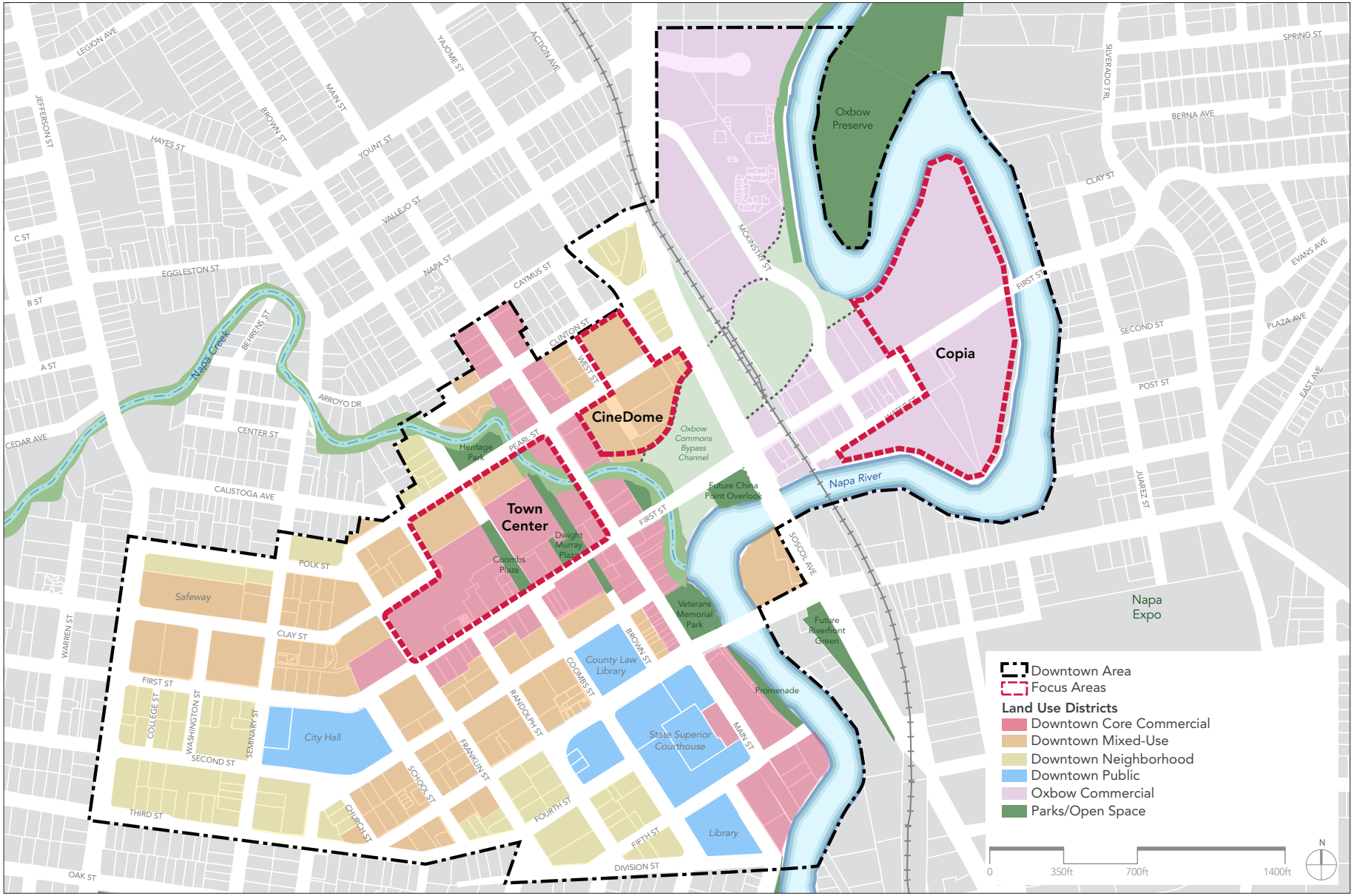
- The **Downtown I** zone would allow the most intensive development at the very center of Downtown, north of First Street and running from the intersection of First and Main streets west to School Street.

- The **Downtown II** zone encompasses most of Downtown except for the core and edges and all of the land east of the Napa River. The zone would allow medium- to high-density development designed to support uses located in the heart of the Downtown area.

- The **Transition** zone encompasses blocks or half-blocks between the downtown core and the sensitive lower-scale residential neighborhoods surrounding Downtown. Generally, the southern and western blocks are characterized by the Downtown Neighborhood land use district, while the northern blocks are characterized by Mixed-Use and Downtown Core Commercial land use districts.

Historic Preservation

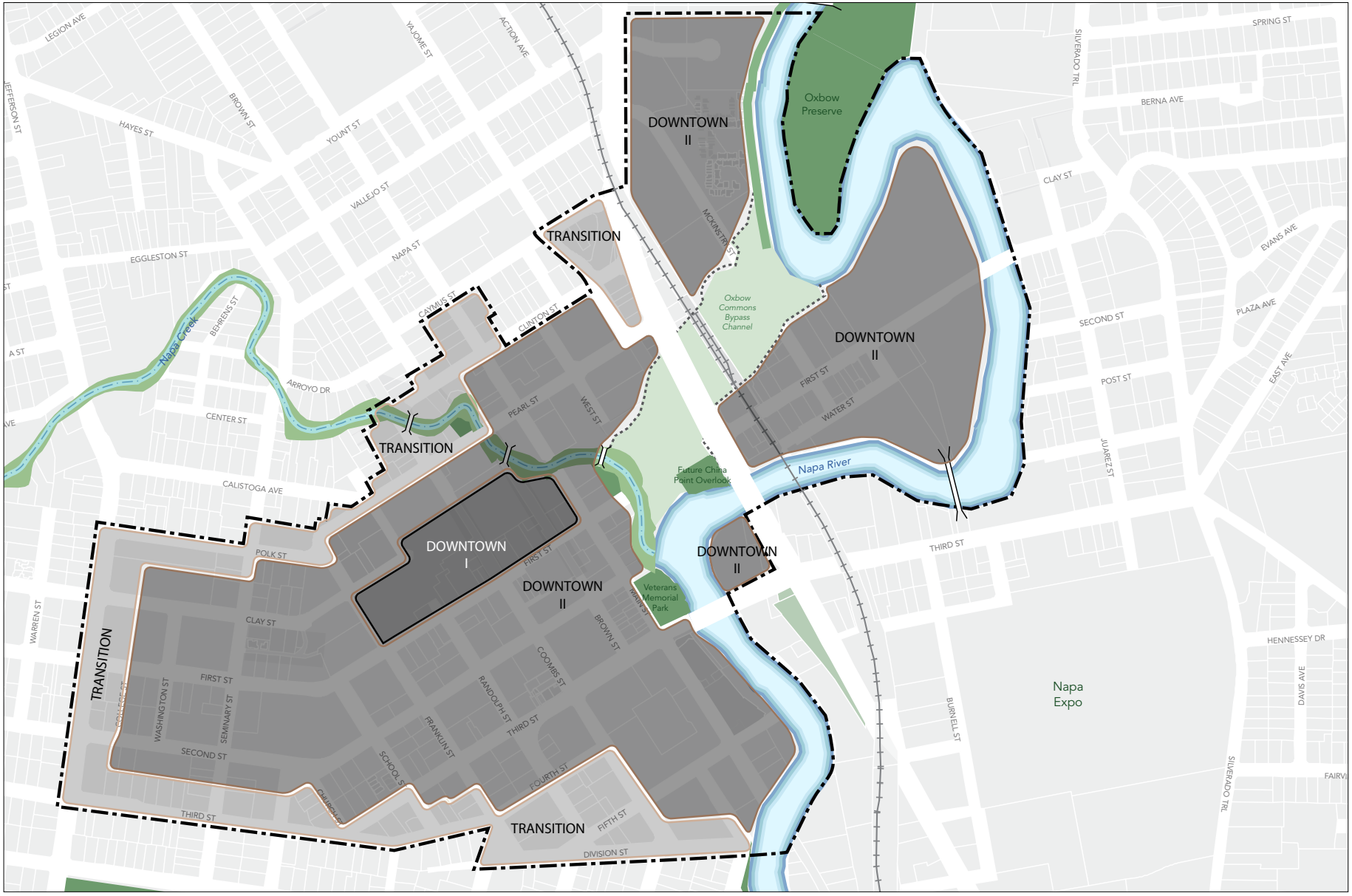
The Planning Area includes both historic commercial and residential properties. Historic resources range in construction date from the Victorian era through the post-World War II era, and are rendered in a variety of architectural styles. As such, the Specific Plan outlines development standards and programs which have been or will be established to preserve and protect historic resources in Downtown. Programs such as tax credits, reduced permit fees, parking exemptions or reductions, and design exceptions are all intended to facilitate the rehabilitation of historic structures.



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 3-4
Focus Areas



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 3-5
Building Form Districts

Improvement Projects in the Planning Area

Circulation in the Planning Area

In addition to future development, Chapter 6 of the Specific Plan addresses key issues and opportunities related to automobile, bicycle, and pedestrian circulation throughout the Planning Area. The circulation chapter encourages greater connectivity for all modes of transportation and presents alternatives for traffic circulation patterns to improve overall circulation throughout the Planning Area.

The circulation pattern would change in Downtown with the proposed two-way conversion of several existing one-way streets in the Planning Area. Two couplets would be converted back to two-way travel, creating a less confusing circulation pattern, providing more direct routes to downtown destinations, and increasing exposure to businesses for passing motorists. Conversion to two-way travel is proposed for the First and Second streets and Third and Fourth streets one-way couplets. The Specific Plan includes converting First and Second streets to two-ways from Main Street to Jefferson Street. Ultimately, the two-way conversion of First and Second streets from Jefferson Street west to California Boulevard may be considered as a future project; however, the Specific Plan traffic analysis assumes two-way conversion ending at Jefferson Street at the Planning Area boundary.

An additional traffic circulation change proposed in the Specific Plan is the reestablishment of one-way northbound traffic on Coombs Street between First and Pearl streets, with the possibility of two-way traffic depending on future property decisions.. This would allow easier access for motorists from First Street to the Pearl Street garage and reduce the number of “around the block” trips that were created by the “superblock” of the Town Center/Kohl’s development.

The Specific Plan includes recommendations for enhancing the north-south and east-west connectivity of the bicycle network within the vicinity of the Planning Area. The proposed bicycle system was developed through coordination with City staff and public outreach efforts. In addition to the existing and currently planned/approved bicycle network, the Specific Plan would include a pedestrian/bike undercrossing below First Street along Napa Creek, a pedestrian/bike crossing over Napa River from Imperial Way to the Oxbow Preserve, a shared-use path along the west side of Soscol Avenue from Third Street to Vallejo Street; bike lanes on First, Third and Coombs streets; and bike routes on the following roadways:

- Clay Street from Jefferson Street to Pearl Street;
- Pearl Street from Franklin Street to Coombs Street;
- Arroyo Drive from Seminary Street to Clinton Street;
- Third Street from the western boundary of the plan area to Randolph Street; and
- McKinstry Street from Water Street to Soscol Avenue.

Refer to Figure 4.L-5 in Section 4.L, *Transportation and Traffic*, for an overview of pedestrian and bicycle improvements proposed under the Specific Plan.

Public Improvements and Facilities

Chapter 7 of the Specific Plan includes several other infrastructure improvement projects within the vicinity of the Planning Area related to public access, utilities, and capital improvements. Sustainable measures included in the Specific Plan encourage infrastructure improvements that would help reduce stormwater runoff and water use.

Infrastructure projects that could occur through development under the Specific Plan include:

- Upgrades to the City's water supply system, sanitary sewer system, and storm drainage system
- Mid-block pedestrian/bicycle crossing improvements on Pearl Street at the Napa Creek crossing and along Main Street
- Pedestrian/bicycle intersection improvements along Soscol Avenue
- Relocation of the Skate Park to another downtown location
- A new ½-acre park at the southwest corner of Main and Pearl streets
- Plaza upgrades at Dwight Murray Plaza, Brown Street Plaza and Coombs Street Plaza
- Napa Creek/Heritage Park
- Potential public/private parking structure in the Oxbow District
- A 375-400 space parking structure near Pearl and West streets to replace and supplement parking that will be removed by the Napa River/Napa Creek Flood Protection Project

Potential Growth under the Specific Plan

Downtown is a historic, pedestrian-oriented district within which opportunities exist for future public and private development, including reuse of existing historic buildings, redevelopment of existing parcels, and new infill development. Future development is anticipated to include residential, retail, office hotel and flex space which may be used for residential, retail or office use. Within the Downtown plan area, there are numerous opportunities for mixed-use development with ground-floor commercial and residential or office in the upper floors.

The Specific Plan addresses development within the Planning Area through 2035. The total projected development capacity of Downtown sites identified for redevelopment within the planning period is presented in **Table 3-2**.[2] The Specific Plan focuses on allowing more residential in Downtown, by increasing potential residential units from 125 units to 642 units. In addition, the Specific Plan would provide the opportunity for an additional 470,600 square feet office space, a 303-room hotel and conference center, and 108,590 square feet of additional retail space over existing development capacity under the General Plan.

[2] It should be noted that this EIR presents a conservative estimate of development capacity, as it projects as it projects 5 to 15 percent more development than the Downtown Napa Specific Plan itself depending on the land use category (expect the hotel land use which is the same as the Specific Plan).

TABLE 3-2
DEVELOPMENT CAPACITY UNDER THE SPECIFIC PLAN

Land Use	Size	Units
Proposed Land Use Capacity		
Residential	642	DU
Retail	575.47	KSF
Office	601.94	KSF
Hotel	303	Rooms
Existing Uses Displaced		
Residential	15	DU
Retail	566.88	KSF
Office	131.34	KSF
Hotel	0	Rooms
Net New Land Use Capacity		
Residential	627	DU
Retail	108.59	KSF
Office	470.60	KSF
Hotel	303	Rooms

NOTES:

For the proposed Hotel on Block F/ Copia Site, the approximate s.f. is estimated at 252,569; however, the number of rooms was needed to estimate trip generation and employment projections. The number of rooms was estimated assuming 60% of building area is used for guest rooms at 500 s.f./room. (252,569 s.f. x 60% guest rooms / 500 s.f. per room = 303 rooms).

Flex Space square footage distributed into total square feet assumes 43% Residential, 35% Retail, 22% Office.

Development capacity assumes ultimate relocation of Napa Transit Center and redevelopment of the existing Transit Center site as a parking lot in the near term, with development potential in the long term. This EIR presents a conservative estimate of development capacity, as it projects 5 to 15 percent more development than the Downtown Napa Specific Plan itself depending on the land use category (expect the hotel land use which is the same as the Specific Plan).

SOURCE: MIG, Inc. (2011)

D. Subsequent Activities, Implementation and Development

After the adoption of the proposed Downtown Napa Specific Plan by the Napa City Council, all subsequent activities and development within Downtown would be subject to, and must be consistent with, the policies set forth in the Specific Plan. Proposed commercial and office uses would be subject to design review and use permit approval. Improvements to public infrastructure such as parks, roadways and drainage, sewer, water and utilities, also would be implemented according to the policies set forth in the new plan. Existing developments would not be directly affected unless the occupants or owners choose to expand or change their structures, grounds or uses.

The implementation and financing strategies for the proposed land use changes and improvements are outlined in an implementation action plan that provides the anticipated prioritization and phasing of improvements.

Regulatory Requirements, Permits and Approvals

This EIR may be used for the following direct and indirect actions within the Planning Area:

City of Napa

The Downtown Napa Specific Plan will be presented to the City of Napa Planning Commission for comment, review and recommendations. The City of Napa City Council, as the City's legislative body, is the approving authority for the Specific Plan. As part of the Plan's approval, the City Council would take the following actions:

- Certify of the Downtown Napa Specific Plan Program EIR.
- Adopt required findings for the above actions, including required findings under the CEQA Guidelines, Sections 15090, 15091 and 15093.
- Adopt the Downtown Napa Specific Plan.
- Adopt a Mitigation Monitoring and Reporting Program (MMRP).

Subsequent actions that may be taken by the City Council regarding the project include, but are not limited to, the following:

- Amendment of the City of Napa General Plan and Land Use Designation Map
- Amendment of the City of Napa Municipal Code and Zoning Maps so that the city zoning maps and the Specific Plan land use policy map are consistent.
- Implementation of financing programs or fee programs for public facilities.
- Approval of subsequent development applications.
- Approval of subsequent public facility and roadway improvement projects.

Other Governmental Agency Approvals

Additional subsequent approvals and permits that may be required for future development projects from local, regional, state and federal agencies include, but are not limited to, the following:

- Bay Area Air Quality Management District approval of dust control plans and other permits for subsequent projects.
- Caltrans approval of improvements and/or funding for future improvements on State Routes 29 and 121.
- Extension of service and/or expansion of infrastructure facilities by area service districts (Water, other utility districts, Pacific Gas & Electric, Napa Sanitation District, Fire District, Napa Valley Unified School District).
- California Department of Fish and Game approval of potential future streambed alteration agreements, pursuant to the Fish and Game Code. Approval of any future potential take of state listed wildlife and plant species covered under the California Endangered Species Act.

- Regional Water Quality Control Board (RWQCB) approval of any activity impacting Planning Area water features, pursuant to the Clean Water Act and RWQCB standards.
- U.S Army Corps of Engineers approval of any future wetland fill activities, pursuant to the Clean Water Act.
- U.S. Fish and Wildlife Service approvals involving any future potential take of federally listed wildlife and plant species and their habitats covered under the Federal Endangered Species Act.
- Union Pacific Railroad approval for any future pedestrian crossings and/or bikeway improvements for crossing their right-of-way.
- Napa County Flood Control and Water Conservation District approvals for any future construction along the Napa River and Creek.

References – Project Description

ABAG, Association of Bay Area Governments, *Taming Natural Disasters*, March 2005.

City of Napa, *Envision Napa 2020: General Plan*, 1998. Amended September 2009.

City of Napa, *Envision Napa 2020: General Plan, Environmental Impact Report*, Adopted December 1, 1998.

CHAPTER 4
Environmental Setting, Impacts, Standard Conditions of Approval and Mitigation Measures

This Draft EIR has been prepared in accordance with CEQA, as amended (Public Resources Code § 21000, et seq.), and the CEQA *Guidelines* (California Code of Regulations § 15000 through 15378).

This chapter contains the analysis of the potential effects on the environment considered under CEQA, from development anticipated by the proposed Specific Plan. This chapter describes the existing setting for each topic, the potential impacts that could result from development anticipated by the proposed Specific Plan, and relevant plans and policies that would minimize or avoid potential adverse environmental impacts that could result. Finally, this chapter identifies mitigation measures necessary to reduce the potential impacts resulting from development anticipated by the proposed Specific Plan.

The following provides an overview of the scope of the analysis included in this chapter, organization of the sections and, the methods for determining significant impacts.

A. Environmental Topics

The following Sections in this chapter analyze the environmental topics as listed below and presented in the Table of Contents at the front of this document:

4.A Aesthetics
4.B Air Quality and Greenhouses Gases
4.C Biological Resources
4.D Cultural Resources
4.E Geology, Soils and Geohazards
4.F Hazards and Hazardous Materials
4.G Hydrology and Water Quality
4.H Land Use, Plans and Policies
4.I Noise and Vibration
4.J Population and Housing
4.K Recreation Facilities
4.L Transportation and Traffic
4.M Utilities and Service Systems

Agricultural Resources and Mineral Resources were determined not to be directly relevant to the proposed Specific Plan and are briefly discussed in Chapter 6, *Impact Overview and Growth Inducement*, under Section 6.E, *Effects Found Not to Be Significant*.

B. Format of Environmental Topic Sections, Impact Statements and Mitigation Measures

Each environmental topic section generally includes two main subsections:

- *Existing Setting* - includes baseline conditions, regulatory setting, Thresholds/Criteria of Significance; and
- *Impacts and Mitigation Measures* - identifies and discusses the potential impact and mitigation measures that would, to the extent possible, reduce or eliminate adverse impacts identified in this chapter.

This EIR identifies all impacts with an alpha-numeric designation that corresponds to the environmental topic addressed in each section (e.g., "4.F" for Section 4.F, *Hazards and Hazardous Materials*). The topic designator is followed by a number that indicates the sequence in which the impact statement occurs within the section. For example, "Impact 4.F-1" is the first (i.e., "1") hazardous materials impact identified in the EIR. All impact statements are presented in bold text.

The Impact Classification (discussed below) of the project's effects prior to implementation of mitigation measures is stated in parentheses immediately following the impact statement.

Similarly, each mitigation measure is numbered to correspond with the impact that it addresses. Where multiple mitigation measures address a single impact, each mitigation measure is numbered sequentially. For example "Mitigation Measure 4.F-1" is the first mitigation identified to address the first hazardous materials impact (i.e., "4.F-1"). All mitigation measure statements are presented in bold text.

C. Thresholds/Criteria of Significance

The CEQA *Guidelines* § 15382 defines a significant effect on the environment as "*a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.*" Determinations of significance vary with the physical conditions affected and the setting in which the change occurs. The significance criteria used in this EIR are the thresholds for determining significance of potential impacts and are based on Appendix G of the CEQA Guidelines.

D. Impact Classifications

The following level of significance classifications are used throughout the impact analysis in this EIR:

- **Less than Significant (LS) –** The impacts of the proposed project, either before or after implementation of standard conditions of approval and/or feasible mitigation measures, do not reach or exceed the defined Threshold/Criteria of Significance. Generally, no mitigation measure is required for a LS impact.

- **Significant (S)** – The impact of the proposed project is expected to reach or exceed the defined Threshold/Criteria of Significance. Feasible mitigation measures and/or standard conditions of approval may or may not be identified to reduce the significant impact to a less than significant level.

- **Significant Unavoidable (SU)** – The impact of the proposed project reaches or exceeds the defined Threshold/Criteria of Significance. No feasible mitigation measure is available to reduce the S impact to LS. In these cases, feasible mitigation measures are identified to reduce the S impact to the maximum feasible extent, and the significant impact is considered SU. Impacts are also classified as SU if a feasible mitigation measure is identified that would reduce the impact to LS, but the approval and/or implementation of the mitigation measure is not within the City of Napa's or a project applicant's sole control, in which case the analysis cannot presume implementation of the mitigation measure and the resulting LS impact. It is important to clarify that SU is an impact classification that only applies *after* consideration of possible mitigation measures.

- **No Impact (N)** – No noticeable adverse effect on the environment would occur.

E. Environmental Baseline

Overall, pursuant to CEQA *Guidelines* §15125(a), this EIR measures the physical impacts of the proposed project (i.e., the development facilitated by the proposed Specific Plan) against a "baseline" of physical environmental conditions at and in the vicinity of the Planning Area. The environmental "baseline" is the combined circumstances existing around the time the NOP of the EIR was published, which is April 2010.[1] In most cases, the baseline condition relevant to the environmental topic being analyzed is described within each environmental topic section in this chapter. In some cases (such as Section 4.A, *Aesthetics*), discussion of the baseline condition is detailed or restated in the Impacts Analysis to provide the impact analysis in the most reader-friendly format and organization. The baseline also includes the policy and planning context in which development facilitated by the proposed Specific Plan is proposed, such as the existing land use designation, zoning, and General Plan policies that currently govern the Planning Area. This is discussed in detail within Section 4.H, *Land Use and Planning*, and the discussion identifies any inconsistencies between the development facilitated by the proposed Specific Plan and applicable, currently adopted plans and policies.

[1] Except as specified otherwise, any reference to "existing" conditions throughout this EIR refers to the baseline condition as of generally April 2010.

F. Cumulative Analysis

Approach to the Cumulative Analysis

CEQA defines cumulative as "two or more individual effects which, when considered together, are considerable, or which can compound or increase the other environmental impacts." CEQA *Guidelines* § 15130 requires that an EIR evaluate potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past, present, existing, approved, pending and reasonably foreseeable future projects. These impacts can result from a combination of the proposed project together with other projects causing related impacts. "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonable foreseeable probable future projects." The City of Napa's analysis approach specifies "past, present, existing, approved, pending and reasonably foreseeable future projects."

Cumulative Context

The context used for assessing cumulative impacts typically varies depending on the specific topic being analyzed to reflect the different geographic scope of different impact areas. For example, considerations for the cumulative air quality analysis are different from those used for the cumulative analysis of aesthetics. In assessing aesthetic impacts, only development within the vicinity of Downtown would contribute to a cumulative visual effect. In assessing air quality impacts, on the other hand, all development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions is the best tool for determining the cumulative effect. Accordingly, the geographic setting and other parameters of each cumulative analysis discussion can vary.

The known cumulative projects in Downtown that would contribute to the cumulative setting are related to the fact that Downtown is the county seat of Napa County. The County is proposing to expand its downtown facilities and is in the process of preparing a County Facilities Master Plan. According to the *County of Napa Conceptual Site Development and Phasing Plan Through 2028* (October, 2010), the County's Downtown development plans include the following in the Planning Area:

- Construction of new 90,000 s.f. office building at the site of the existing surface parking lot with some below-grade parking at the southwest corner of Coombs and Third streets

- Construction of a new 90,000 s.f. office building with 22,000 s.f. below-grade storage/meeting space at the site of the existing Administrative Building

- Discontinued use of the Carithers Building (to become surplus space)

While not planned as part of the County Facilities Master Plan, there are proposed plans to expand the downtown jail facilities to accommodate an additional capacity of 366 to 500 beds.

Additional other ongoing projects in the Planning Area include those related to the Napa River Flood Project:

- A potential pedestrian bridge near the southern boundary of the Copia Focus Area over Napa River
- A potential boat dock at the southern boundary of the Copia Focus Area
- Future riverfront trail along the eastern side of Napa River as part of the Flood Protection Project.

Generally, this list of projects, as well as cumulative development beyond the Planning Area that could potentially result in an incremental impact when added to the proposed development facilitated by the Specific Plan, was used to identify past, present, existing, approved, pending and reasonably foreseeable future projects in the vicinity of the Planning Area. It should be noted, however, that the list approach is not intended as an inclusive list of cumulative projects considered in this EIR. As discussed above, cumulative projects considered in the cumulative context can vary by environmental topic; therefore, some of those listed above may not be directly relevant to the cumulative context, depending on the environmental topic.

In some cases, the cumulative context may include more development than the specific known projects. A primary example is the transportation analyses (and transportation-related traffic and air quality), which uses a growth rate to account for background traffic from projects citywide and the broader regional context. Alternatively, as mentioned above, the aesthetics analysis would primarily consider projects within the viewsheds of the Planning Area, which may not, for example, include projects on the list that are located in distant areas, particularly low-rise development not affecting the downtown skyline. Further, projects contributing to potential cumulative effects to cultural resources, for example, could consider development in and near the Planning Area as well as development citywide (in the case of impacts to resource types such as libraries, railroad-related resources, and cultural sites found throughout the city, although not the case for the proposed Specific Plan analyzed in this EIR).

The cumulative discussions in each topical section throughout this chapter describe the cumulative geographic context considered for each topic at a level appropriate to the program-level analysis presented in this EIR. Cumulative impacts from development pursuant to the proposed Specific Plan, per CEQA *Guidelines* §15130, are further address in Chapter 6 of this EIR, under B. Cumulative Impacts.

4.A Aesthetics

This section discusses the existing visual conditions within the Planning Area, and considers the potential visual effects of the proposed Specific Plan with respect to visual character, views, scenic resources, and light and glare. This section considers the proposed Development Standards, Design Guidelines, and various other mechanisms incorporated as part of the Specific Plan to determine the type and magnitude of changes that would occur to the visual environment with implementation of the plan.

Setting

Existing Conditions

Within the City of Napa, Downtown is located on the west bank of the Napa River, near a large meandering oxbow in the river's course. Downtown is in the central part of the city, between State Route 29 and State Route 121. As stated in the Chapter 3, *Project Description*, the Planning Area covers approximately 210 acres and is bounded to the east by the eastern bank of the Napa River, to the south by Division and Third streets, and to the west by Jefferson Street. The northern boundary generally follows the zigzagging edge of the "Downtown Commercial" zoning area boundary adjacent to northern residential neighborhoods along Polk and Caymus streets west of the Soscol Area. Planning Area boundaries extend east to include the Oxbow Public Market and the former Copia properties east of Soscol Avenue.

The general vicinity surrounding the Planning Area contains low- and medium-density residential uses, mixed-use neighborhoods, and public uses. Adjacent neighborhoods include residential districts (Central Napa neighborhood and ABC streets to the north and northwest), historic districts (Napa Abajo/Fuller Park Historic District to the south and Calistoga Avenue Historic District to the northwest), and mixed-use neighborhoods (Soscol/East Napa neighborhood to the east). In addition, the State-owned Napa Valley Expo, a large complex consisting of pavilions and open areas, is located about a quarter mile south and east of the Planning Area.

The block pattern within the Planning Area is generally regular (an axis of north-south oriented streets intersected by east-west oriented streets) west of Soscol Avenue, although the grid axis shifts just east of Seminary Street (north of terminus of Wilson Street at Second Street). Blocks in this vicinity measure approximately 240 to 300 feet in length, with the exception of those that contain the County Courthouse, City Hall and Napa Town Center, which are larger and, in the case of the latter two, irregular in shape. Individual parcels within the Planning Area range widely in size and pattern. Smaller lots typically contain residential and historic structures and most measure approximately 30 to 60 feet in width. Lots that contain neighborhood-serving retail uses, civic uses and hotels are typically larger, sometimes extending over the entire block or a large part of the block. This pattern of smaller blocks and lots, interspersed with larger blocks containing civic uses, defines the overall massing and scale of the Planning Area.

The built environment within the Planning Area consists of a diverse mix of structures that vary in terms of size, massing, and architecture. Buildings range from one-story ornate historic structures to more contemporary two- to five-story buildings and even larger civic uses. The visual character within the Planning Area is guided somewhat by the parcels' land uses and zoning designations, which dictate the types of uses permitted within the various clusters of Downtown development. Along the main streets closest to the Downtown's core, such as Main and First streets, for example, many buildings are built to lot-lines with doors and windows oriented directly to the streets. This creates an active streetscape and accentuates a sense of activity within these areas, maintaining a strong relationship between the buildings and the streets.

On other blocks, including those that contain civic structures, neighborhood-serving retail and lodging uses, buildings are sometimes set back from the street, either surrounded by surface parking areas or other features such as ornamental landscaping and pedestrian plazas. Height limits allowed in the Downtown core range from 50 to 68 feet, although most existing buildings (particularly historic structures) are shorter, ranging between one and three stories in height. The Planning Area also contains numerous parking lots and vacant lots, which break up the street wall and result in an inconsistent urban form.

Veterans Memorial Park and Heritage Park provide areas of natural resources in the Planning Area. Segments of the Napa River and Napa Creek riparian corridors also provide scenic edges along Downtown's eastern boundary and within the center of the Planning Area. There are also additional green areas that surround the Post Office and Court House as well as various landscaping throughout the Planning Area. The parks, river and creek segments, and other natural features complement the surrounding urban environment and incorporate softer visual features into the Planning Area.

Significant Visual Features

Scenic Views

The Planning Area is relatively flat in elevation and is heavily developed. Thus, some views of surrounding areas from within the Planning Area are obscured by intervening development. However, certain portions of Downtown nevertheless allow views into the surrounding residential neighborhoods.

Entries and Corridors

Primary gateways into and out of the Planning Area are at key intersections on the edges of Downtown. They announce arrival and departure, and are generally oriented and scaled to vehicles. Primary gateways into the Planning Area include Third Street and First Street at Soscol Avenue, Jefferson Street at First, Second and Third streets; and Silverado Trail at First Street.

Major corridors connecting various parts of the city to Downtown are also emphasized to clarify the structure of the City and to provide a more pleasing visual experience while moving through

the community. The following major corridors lead to Downtown: Soscol Avenue, Jefferson Street, First Street, Second Street and Third Street.

Scenic Roads

Several roads in Napa have unique scenic qualities because of their natural setting, and historical and/or cultural features. A scenic road is defined as a highway, road, drive, or street that, in addition to its transportation function, provides opportunities for the enjoyment of natural and human-made scenic resources. Scenic roads direct views to areas of exceptional beauty, natural resources or landmarks or places of historic or cultural interest. According to the General Plan, Silverado Trail (SR 121), from Imola Avenue to Lincoln Avenue, is designated as a "scenic corridor," which is located just east of the Planning Area.

Visual Resources

The Planning Area contains many visual resources including both natural and manmade elements such as the Napa River, Napa Creek, and neighborhood-serving parks, and historic buildings, which are scattered throughout the Planning Area. The historic commercial and civic structures generally are concentrated in central Downtown, especially along Main, Brown, and Coombs streets and First, Second, and Third streets, while historic residences are located in the more outlying areas of Downtown, in transition zones and adjacent historic neighborhoods of St. John's, Calistoga Avenue, Napa Abajo, and Fuller Park. Historic properties which can be considered visual resources in the downtown area include the Bank of Napa (now Wells Fargo) and the Oberon Bar at 902 Main Street, the Franklin Station Post Office at 1351 Second Street, the Uptown Theatre on Third Street, the First Presbyterian Church on Randolph Street and others. There are also historic churches in the Planning Area, located primarily in the residential and transitional areas of Downtown. (Historic resources are discussed further in Section 4.D, *Cultural Resources*).

In addition, the former Copia, a recently closed food and wine complex, consisting of a 13,000-square-feett of gallery space, restaurant, theater, library, kitchens, three and one-half acres of landscaped gardens, outdoor performance space and surface parking also serves as a visual resource, although public access into the property is currently limited due to the facility's closure.

Regulatory Setting

This section identifies policies related to the physical environment that pertain to the project's potential effects to scenic vistas and resources, and visual quality and character.

State of California

In 1963, the California Legislature established the State's Scenic Highway Program, intended to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highways program, a provision of the Streets and Highways code, is administered by the California Department of Transportation (Caltrans). The State Scenic Highway System includes highways that are either eligible for

designation as scenic highways or have been designated as such. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, § 260 et seq.

State Route 29, which runs in a north-south direction approximately one-half mile west of the Planning Area's western boundary, is not an officially designated, but eligible, scenic highway (Caltrans, 2010). In addition, a segment of State Route 121, less than one quarter mile to the Planning Area's east, is also an eligible scenic highway. As such, State Routes 29 and 121 scenic corridors (defined as the area of land generally adjacent to and visible from the highway) are subject to protection.

For Caltrans to grant an eligible route official status as a California State Scenic Highway, the local jurisdiction must implement a Corridor Protection Program by either adopting ordinances, zoning and/or planning policies to preserve the scenic quality of the corridor, or documenting that such regulations already exist in various portions of local codes. Policies to prevent visual degradation of these view corridors might include restriction of dense and continuous development, reflective surfaces, ridgeline development, extensive cut and fill grading, disturbed hillsides and landscape, exposed earth, and non-native vegetation (Caltrans, 2010).

Local Plans and Policies

City of Napa General Plan

The City of Napa General Plan, *Envision Napa 2020* (City of Napa, 1998), outlines policies, standards and programs that together provide a comprehensive, long-term plan for physical development within the City. Individual development projects proposed within the City must demonstrate general consistency with the goals and policies outlined within the General Plan, which articulates and implements the City's long-term vision as it pertains to housing, transportation, historic preservation, open space and other areas. The General Plan contains the following goals and policies specifically relevant to visual resources for the Specific Plan.

> **Goal LU-6:** To improve the vitality and character of downtown through planning, design, business-community partnerships, and City programs and projects that encourage a variety of social, entertainment, cultural, retail, administrative, and government uses.
>
> > ***Policy LU-6.1.*** The City shall require retail and commercial uses to orient to the sidewalk or public spaces and to maintain an active street frontage in the pedestrian-oriented parts of downtown.
> >
> > ***Policy LU-6.2.*** The City shall work with local preservation groups and downtown property owners to improve building facades and exteriors consistent with the historic and visual character of downtown.
> >
> > ***Policy LU-6.4.*** The City shall promote riverfront development that reorients downtown to the Napa River and shall encourage creative designs during the development review process.
> >
> > ***Policy LU-6.5.*** The City shall provide for development of hotel and conference facilities in the downtown area. The City shall encourage any hotel developer to tie

the facility to downtown and riverfront restoration through physical improvements and joint promotional involvement.

Policy LU-6.16. The City shall enhance public access to the downtown, including a stronger link to downtown residential neighborhoods, through improvements to directional signs, roads, transit, and pedestrian and bike trails along streets and the river.

Policy LU-6.7. The City shall promote 24-hour activity in the downtown, by allowing development that mixes residential and commercial uses in the same structures and supporting entertainment and cultural uses in the downtown.

Policy LU-6.8. The City shall identify key entry points and blighted conditions on the edges of downtown and support programs and projects that enhance downtown gateways and transitional zones between downtown and surrounding neighborhoods. The City shall seek to remove blighting conditions at key entry points to make downtown more inviting for residents and visitors.

Policy LU-6.9. The City shall support government and private projects that improve the public spaces of downtown to better serve the cultural, recreational and special event needs of the city. Where feasible and practical, the City shall promote integration of public open space with adjacent private business to create active environments.

Policy LU-6.13. The City shall support and encourage the development of art and cultural institutions in the downtown area.

Goal HR-4 To achieve a vital downtown that reflects its historic urban form and setting, offering a mix of old and new buildings.

Policy HR-4.1. The City shall promote the preservation of the historic urban form of the downtown. Historic heights, street faces and building massing shall be supported by new development.

Policy HR-4.3. The City shall take advantage of the historic setting of downtown, and encourage lively, interactive uses throughout the day and into the evening.

Policy HR-4.4. The City shall support the downtown Facade Improvement Program to improve building fronts based upon historic commercial building design guidelines. Restoration could include the removal of facades which have been applied in the past to “update” structures.

Policy HR-4.6. The City shall work with the local tourism industry to support and foster historic resources as a destination, demonstrating that cooperation with the preservation community will improve the quality of the visitors' experience.

Policy ED-3.7. Recognizing the importance of Downtown to the city’s image, the City shall ensure that Downtown infrastructure, public facilities, and public areas are well maintained. The City shall also provide ongoing code enforcement in Downtown.

Redevelopment Project Areas' Five-Year Implementation Plans

Prepared in compliance with Section 33490 et seq. of the California Redevelopment Law, the Five Year Implementation Plan for fiscal years 2010/2011 –2014/2015 for the Parkway Plaza and Soscol Gateway redevelopment project areas was adopted by Napa's Redevelopment Agency Board of Directors in June 2010. This plan authorizes a variety of tools that the City's Redevelopment Agency may employ to revitalize the Soscol Gateway and Parkway Plaza redevelopment areas in a manner that is consistent with the Napa General Plan. The Implementation Plan contains the following goals and objectives which are relevant to visual resources for the Specific Plan:

- Soscol Gateway Goals: The Soscol Corridor will become the primary mixed-use gateway into the city with vital and prosperous business activity, healthy residential neighborhoods, enhanced transportation and circulation systems, and upgraded properties to serve local residents, businesses, employees, and visitors. The northern end of the project area is at the confluence of established residential neighborhoods, tourist commercial development, Downtown and the Napa River, future trails and open space, a future transit center and boat dock, and a major transportation corridor. The design and character of new development along the corridor will take into account the larger area context and how the development serves to connect to the larger community and the Napa River.

- Encourage development according to the City's General Plan, the Soscol Corridor/Downtown Riverfront Development & Design Guidelines and the Gasser Master Plan, as these documents currently exist or may be amended in the future.

- Help preserve and enhance existing conforming residential neighborhoods through landscaping, street and other infrastructure improvements.

- Work with business and property owners to upgrade their properties in the Project Area.

- Encourage policies that protect historic structures and ensure historic preservation in the Project Area.

- Rehabilitate deteriorated residential and commercial properties to eliminate safety deficiencies to extend the useful lives of these structures.

- Work with property owners to eliminate the negative impacts related to non-conforming land uses (City of Napa, 2005).

- Work with the appropriate agencies to ensure the design of the Downtown Reach of the Flood Protection Plan is consistent with the community's vision, maximizes pedestrian and watercraft access to the riverfront, and ensures continuity of design among all the features.

- Encourage and support downtown riverfront development that maximizes the guidance provided in the Soscol Avenue/Downtown Riverfront Design Guidelines or any subsequent adopted design guidelines. Encourage owners of existing buildings to upgrade river-fronting facades, to provide outdoor seating and amenities between their buildings and the river, and to orient parking in accordance with the Guidelines.

- Promote greater access between the downtown core commercial and surrounding areas through pedestrian, automobile, bicycle, public transit, and circulation linkages. Continue to improve the major entryways and gateways to Downtown through upgraded signage, landscaping and removal of blighting conditions.

- Ensure appropriate "transitional zones" between the downtown core and surrounding neighborhoods. Address issues relating to the interactions between the two areas such as traffic, noise, overflow parking and visual blight. Proactively work with major parking users and residents to ensure neighborhoods are not negatively impacted by increased parking demand in adjacent commercial areas. Work to protect housing stock in historic areas on the periphery of the commercial downtown in these transitional areas.

- Ensure the Napa River becomes a focal point for Downtown. Provide key public open spaces and plazas along the river's edge and throughout Downtown to serve the growing need for recreational activities and special events.

- Maintain and enhance the prosperity of existing businesses in Downtown Upgrade infrastructure as needed to support increasing demand and facilitate private investment and development. Work with the City to implement dedicated maintenance programs to insure the quality and appearance of the area over time.

Design Guidelines for the Napa Abajo/Fuller Park Historic District

The 1998 Design Guidelines for the Napa Abajo/Fuller Park Historic District provides a basis for making decisions about the appropriate treatment of historic resources and compatible new construction within this historic district in the City of Napa. This document addresses a variety of construction and repair work, including rehabilitation of historic properties, alterations to "non-contributing" structures and the construction of new buildings. The following preservation principles apply to all historic properties in Napa:

- Respect the historic design character of the building;

- Seek uses that are compatible with the historic character of the building;

- Protect and maintain significant features and stylistic elements;

- Preserve any existing original site features or original building materials and features; and

- Repair deteriorated historic features, and replace only those elements that cannot be repaired.

The guidelines incorporate principles set out in The Secretary of the *Interior's Standards for the Treatment of Historic Properties*, which is described in more detail in Section 4.D, Cultural Resources. The Design Guidelines describes the architectural styles, provides rehabilitation guidelines for historic properties, and includes policies of the various character-defining features of the Napa Abajo/Fuller Park Historic District. For new construction within this district, the Design Guidelines includes a policy that encourages compatibility of new structures with the historic character of the neighborhood. Some of the design guidelines pertain to conforming with street patterns, building orientation, building alignment, mass and scale of the new building, building and roof form, architectural character, similar windows and doors characteristic of the Napa Abajo/Fuller Park Historic District.

Impacts and Mitigation Measures

Significance Criteria

The visual character of a landscape depends on such attributes as color, texture, complexity, and the form of landscape components. Impacts on visual resources are evaluated and determined by comparing changes in these attributes that would result from the project. The reduction of a view's complexity, or the obstruction of or encroachment upon background or middle ground views all would contribute to the significance of impacts. Consistent with CEQA *Guidelines* Appendix G (Environmental Checklist) the project could have a significant impact on visual resources if it would:

a) conflict with the City goals and policies related to visual quality, or other applicable aesthetic or visual policies or standards;

b) significantly alter the existing natural viewsheds, including changes in natural terrain or vegetation;

c) significantly change the existing visual quality of the region or eliminate significant visual resources;

d) significantly increase light and glare in the project vicinity; or

e) significantly reduce sunlight or introduce shadows in areas used extensively by the public.

Impacts and Mitigation Measures

Impact 4.A-1: Development facilitated by the Specific Plan could potentially alter views along certain corridors. (Less than Significant)

The City of Napa does not have any officially designated scenic views or vistas. However, State Routes 29 and 121, both of which run in north-south directions approximately one half mile west and less than one quarter mile east of the Planning Area, respectively, are eligible scenic highways in the vicinity of Downtown. In addition, other view corridors, including view of the hills from the Oxbow area, that could be affected by development facilitated under the proposed Specific Plan include Jefferson Street, Soscol Avenue, and First, Second and Third streets. Because the Planning Area is relatively flat, largely built-out, and contains many street trees, public views from and through Downtown from these corridors are somewhat obscured, although it is possible that limited views of the Planning Area are available.

At buildout, the implementation of the Specific Plan would result in the replacement of existing structures and underutilized lots with potentially larger and taller buildings, pursuant to the development standards proposed for the three "building form districts." According to these standards, height limits of up to 75 feet would be permitted within the Downtown I district (in Downtown's core, on the north side of First Street from intersection of First and Main streets extending west to School Street), while the areas surrounding the Downtown core (Downtown II) would have maximum height limits of 60 feet and the Transition areas along the perimeter of the

Planning Area would have maximum height limit of 35 feet. The Building Form Standards would regulate building heights within the Planning Area so as to concentrate the tallest heights in the central Downtown areas while generally maintaining existing height limits throughout the surrounding blocks. The taller buildings could redefine Downtown's profile against the sky by creating a "mound" within the Planning Area's core. However, at 75 feet, this impact could be noticeable but would not be substantial or adverse, as taller development would be appropriate for the Downtown I area, which is targeted for the most intensive redevelopment. Further, existing height limits are set at 68 feet, and existing development in Downtown reach up to 59 feet in height (Avia Hotel). As such, a height limit of up to 75 feet would be considered an additional floor and would not be a substantial or adverse visual impact.

The new taller and larger buildings could also obscure long-range views from and through the downtown core and potentially out to the surrounding areas, such as the Napa Valley. However, these changes would be limited to a relatively small area and much of the existing views from and through the city's Downtown would continue to be available. Therefore, changes to existing view corridors would not be substantially adverse.

In addition, the Specific Plan contains policies designed to preserve and enhance existing views along the Napa River riparian corridor. These would ensure that the scenic medium- and long-range views along the Planning Area's eastern edge would continue to be available to the public. Thus, the proposed Specific Plan would not substantially obscure views of the Napa River riparian corridor from any of the surrounding scenic corridors.

Short- and medium-range views along the Downtown's streets, such as those experienced by pedestrians, bicyclists and motorists, would be largely shaped by the proposed massing and scale, architectural elements, and landscaping proposed by the Specific Plan. The Design Guidelines proposed as part of the Specific Plan would encourage new development to be sensitive to the existing lots and would require that new development not overwhelm the existing pedestrian experience on the street. For example, for any projects constructed adjacent to lower-scale developments, the Design Guidelines would require that massing elements be incorporated into the future projects to appropriately transition between the structures of different heights. This would be achieved by varying the massing of the proposed buildings to best transition to the existing shorter structures, providing upper story setbacks to minimize views of upper stories from the street levels, and various other mechanisms. Overall, the Design Guidelines would require the new development to respond to the surrounding context, while maintaining an active street edge. Although short- and medium-range views would be altered by the eventual buildout of the Planning Area, resulting in various view corridors appearing more densely built out, no scenic views or vistas would be substantially or adversely affected. Thus, these impacts would also be less than significant.

Mitigation: None Required.

Impact 4.A-2: Development facilitated by the Specific Plan could potentially result in substantial adverse impacts to scenic resources, including, but not limited to trees, rock outcroppings and historic buildings within state scenic highways. (Less than Significant)

As stated above, there are no officially designated scenic highways in or near the Planning Area. Similarly, there are no rock outcroppings in the Planning Area. As stated in the Setting section, the visual resources within the Planning Area include historic buildings, contemporary structures, and natural features along the Napa River and Napa Creek (physical impacts to historic architectural resources are discussed in Section 4.D, *Cultural Resources*). Impacts to views of the surrounding Napa Valley, which are visual resources partially visible from portions of the Planning Area, are addressed under Impact 4.A-1, above.

Design Guidelines developed as part of the Specific Plan contain policies that provide general direction for future building design within each of the Building Form Districts, as well as Focus Areas (Town Center, CineDome, and Copia). A separate set of guidelines has also been developed for historic resources. These guidelines require that new buildings be sensitive to the historic scale and architecture of Downtown and encourage historic preservation and adaptive reuse to maintain the unique ambiance of the Planning Area. As part of design review, the Design Guidelines for Historic Resources would be consulted for any project involving a property listed on the city's Historic Resources Inventory.

Finally, given the urban context and largely developed character of the Planning Area, mature trees are primarily located within the public right-of-ways, including streets, sidewalks and other public areas, and along the perimeter of private properties. While it is possible that some mature street trees may be removed as a result of individual development projects in the future, the Specific Plan encourages the addition of trees and landscaping along sidewalks, in plazas and other public spaces. As illustrated on Figure 5.1, Streetscape Plan, of the proposed Specific Plan, landscaping improvements are proposed along most of the main streets, including First, Second and Third streets, as well as Soscol Avenue, Main Street, Seminary Street and Jefferson Street. Based on this, it is not expected that implementation of the Specific Plan would result in a demonstrable reduction in the number of street trees.

Based on the above, the implementation of the proposed Specific Plan would not result in substantial adverse impacts to scenic resources and the impact is less than significant.

Mitigation: None Required.

Impact 4.A-3: Development facilitated by the Specific Plan could potentially change the visual character of the Planning Area. (Less than Significant)

The Specific Plan defines the visual character of the Planning Area in terms of both the built environment, which includes building heights, massing, and design, as well as public open spaces, such as parks, plazas, sidewalks, and roadways. The following analysis of visual character

impacts determines how the Specific Plan would affect the visual experience of the Planning Area. Although perception of visual character is somewhat subjective, the analysis describes to what extent the visual character would be changed, and whether this change would degrade what exists under current conditions.

The overarching objectives of the Specific Plan that will ultimately guide the visual character of the Planning Area are to (1) "define a unique identity for Downtown Napa that builds on existing historic elements, improving connectivity within the Planning Area and to neighborhoods surrounding the downtown core," (2) "promote sustainable design and development and historic preservation by providing incentives to developers that offer green, environmentally sensitive projects as well as historic preservation and adaptive reuse projects;" and (3) "ensure that the downtown core embraces the Napa River through orienting new development toward the river and instituting river-friendly design and construction practices." The Specific Plan acknowledges the need to address the community's desire for a more active and vibrant downtown, and proposes to provide opportunities to introduce a variety of infill projects, new community public spaces and new residential uses while modulating the design of the new development to be sensitive to the existing small-town character. The Specific Plan includes various mechanisms developed in order to guide this overall vision, as discussed below.

Development Standards for Building Form Districts

As discussed in Chapter 3, *Project Description* and under Impacts 4.A-1, above, the Specific Plan contains development standards that would shape the urban form (height and massing) of future construction within the Planning Area. Three sets of standards have been developed that would be applied to three geographic zones within the Planning Area (see Figure 3-5 in the Project Description). The development standards would promote cohesive site planning and design, and provide compatibility between the more intensive areas within the Downtown core and the less intensive areas in the surrounding areas (including transitional districts). The development standards would include requirements for Floor Area Ratio (FAR), density, parking requirements, setbacks and height.

The three Building Form Zones in the Planning Area generally would channel the most intensive development to Downtown's center, within the Downtown I zone (First and Main streets area), transitioning to less intensive development further away from the core (Downtown II and Transition zones). As such, the proposed changes would result in a development pattern which transitions appropriately from Downtown to the surrounding lower-scale residential neighborhoods by stepping down the scale and intensity of development in a coordinated manner. This would result in a visual character that is scaled appropriately to its geographical location.

Design Guidelines to Address the Built Form

The Specific Plan includes Design Guidelines intended to guide future development within the Planning Area and ensure consistency in visual character within the defined subareas. The following are some of the proposed Guidelines that would shape the visual character within the Planning Area.

- **Site Layout and Building Orientation.** Orient buildings so that primary façades and key pedestrian entries face major streets; locate semi-private open spaces, such as common courtyards, to face major streets, activating the corridor and providing "eyes on the street"; design river and creek frontages to activate the promenade and take advantage of views, encourage through-block pedestrian connections, discourage service access and service areas on the river side of any property, and discourage surface parking lots between buildings and the river edge.

- **Massing and Scale.** Ensure that building mass and scale does not overwhelm the pedestrian experience on the street; utilize special architectural features such as gables, turrets, towers, and loggias to accent buildings at major street corners, at the terminus of a street corridor, at gateway locations, and/or at other highly-visible building locations; break up the mass of large-scale buildings with articulation in form, architectural details, and changes in materials and colors, and other similar elements; encourage distinctive landmark buildings at gateway locations to have architectural elements such as a tower at the corner, articulation or unique roof silhouettes, providing a corner plaza, and/or a recessed building entrance at the corner.

- **Building Heights and Stepbacks.** New buildings and building additions should reinforce the historic pattern with heights and setbacks oriented to the many existing two- and three-story buildings; on taller buildings, retain pedestrian scale with design strategies such as upper-story stepbacks; where neighboring buildings are three stories or lower in height, match the height of street façades to adjoining buildings. Where applicable, building heights must also be sensitive to adjacent historic properties.

- **Building Setbacks.** Setbacks and overall building form should maintain the human scale of Downtown, with emphasis on maintaining an active street edge; the character of the setback area should respond to the surrounding context, whether it be the heart of Downtown on First Street or a tree-lined street on the edge of Downtown.

- **Building Façade Articulation.** Regardless of architectural style, new infill development should reinforce the existing character of finely detailed building façades, with attention to the design details and articulation of façades. Enliven the façade and provide human scale with generous reveals such as inset doorways and windows, as well as projecting elements such as entrance porches, porticoes, canopies, awnings and trellises; on commercial façades, include the elements that make up a complete storefront including doors, display windows, bulkheads, signage areas; utilize architectural elements such as cornices, lintels, sills, balconies, awnings, porches and stoops to enhance building façades. Include a level of architectural detailing and quality of materials that complements historical buildings; for new projects located adjacent to residential neighborhoods, reflect the transition in use and scale with design elements such as porches, roof slope and architectural features.

Additional guidelines included as part of the Specific Plan direct the design specification for the following elements of the built environment: use of materials (should be richly detailed to provide visual interest); lighting; signage; awnings; parking lots and structures; alleys and services areas; and bicycle and pedestrian facilities. In combination, these guidelines would provide future developers with a clear vision of what is desired and expected in the Planning Area. Although some flexibility would be allowed in the design process, ultimately, the Specific Plan would result in a visual character that relates well to the existing visual quality of the area (i.e., is

compatible with the surrounding uses), maintains the overall scale and character of the existing development and is considerate of its existing historic nature.

Design Guidelines for Focus Areas

The Specific Plan recognizes the unique character of the three Focus Areas (Town Center, CineDome and Copia) located within the boundaries of the Planning Area. Specific design guidelines have been developed to address future development within each of these distinctive areas. These guidelines emphasize specific land uses and identify specific public realm improvements, as well as other improvements, such as new plazas or parks, pedestrian and bicycle connections through the design of streets, pathways and passageways and the like. The Guidelines developed specifically to address the Focus Areas will help to ensure that these subareas are given special treatment due to their unique character, location within Downtown and historic value.

For example, the Specific Plan encourages retail uses on the ground floor of the Town Center Focus Area, and promotes mixed-use, office or residential uses within the CineDome Focus Area. The Specific Plan also would allow taller buildings to front Soscol Avenue within the CineDome Focus Area to create a better-defined street edge. Within the Copia Focus Area, the Specific Plan encourages preserving the gardens on the north side of First Street while incorporating public amenities like the River Trail and access to the river.

Design Guidelines to Address Historic Resources

The Downtown Napa Historic Resources Design Guidelines are a separate set of design guidelines that focus on the historic resources within the Planning Area. Because the late 19th and early 20th Century buildings define and greatly contribute to the area's visual character, these guidelines would apply to modifications and potential redevelopment of the existing historic structures, as well as adjacent properties. The Historic Resources Design Guidelines stress historic preservation and adaptive re-use, both to maintain the unique ambiance of Downtown Napa and also for ecological benefits, as well as encourage new buildings in proximity to historic buildings to be sensitive to the historic scale of nearby structures and architecture of Downtown.

Guidelines that would affect the visual character of the Planning Area include those that require that historic facades be preserved; that any additions to existing buildings be located on a secondary or rear façade or set back from the primary façade; and that new construction near historic residential properties be appropriately set back from the street to preserve the open space and rhythm between residences. A guideline requiring that building additions or new construction appropriately reference adjacent historic resources such that proposed changes are compatible both with the subject property and adjacent historic resources.

Design Guidelines to Address the Public Realm

The Specific Plan includes design guidelines intended to improve the streetscape, open spaces, plazas, and sidewalks within the Planning Area and to create a consistent area-wide streetscape design. The guidelines also focus on connecting public spaces with the private buildings and on streetscape improvements such as roadways, crosswalks and bulb-outs, sidewalks, landscaping,

street furniture, lighting, public art, signage and stormwater management. The guidelines also seek to connect the various transportation modes to the built environment and enhance the visual experience of pedestrians, motorists, public transit users and bicyclists. Specific guidelines related to streetscapes and roadways include planting trees in appropriate locations; installing street furnishings, such as benches, bollards and bicycle racks to provide convenience to pedestrians and enhance the historic Downtown setting; installing lighting to provide attractive and safe outdoor illumination for sidewalks and pedestrian routes; installing pedestrian-scaled signage; and encouraging utilization of sidewalk planters and planter strips to serve as stormwater run-off collectors and planters. The Specific Plan also seeks to create pocket parks and enhance public plazas by providing seating and improving gateways leading into the Planning Area with use of public art. In combination, these improvements will enhance the visual character of Downtown's streetscape and provide pedestrians, bicyclists and others who traverse the area with a cohesive and visually pleasing urban environment.

Conclusion

As referenced in the Regulatory Setting, above, the City's General Plan guides development and use of land in the city. Although the General Plan would be amended to adopt the Specific Plan, the proposed Specific Plan is generally consistent with the existing goals and policies of the General Plan, which would remain relevant throughout the implementation of the Specific Plan.

The Specific Plan would respond to the General Plan goal of improving the vitality and character of downtown through planning and design by implementing massing and design controls to moderate the degree of visual change between existing and new buildings and provide for articulation to enhance the visual interest of buildings. The Specific Plan would largely maintain the existing street pattern while providing stronger street edges and enhanced pedestrian facilities and plazas. The proposed heights would be designed to channel more intense development to the Downtown's core, creating a focal point with a strong civic presence within this area. The increased heights would help to meet the objectives of the Specific Plan for increased use of underutilized properties, and would be an appropriate way to generate additional vibrancy and encourage infill development. Lower heights would be transitioning to lower intensity in the surrounding areas, consistent with the existing character of these areas. In all areas, the proposed Design Guidelines would require varied massing for visual interest, setbacks to ensure consistency with existing historic structures and installation of street trees and pedestrian amenities to enliven the public realm and create a continual visual theme along streets Downtown. These changes would not result in an adverse impact, but potentially result in a beneficial impact.

Although the Specific Plan would result in a change to the visual character of Downtown, the proposed changes would meet the objectives of the General Plan and would serve to better guide future development in the city's historic downtown. As such, while development facilitated under the proposed Specific Plan would result in a change from the existing visual character, such change would not result in adverse visual impacts and impacts to visual character would be less than significant.

Mitigation: None Required.

Impact 4.A-4: Development facilitated by the Specific Plan could potentially construct new buildings and street lighting within the Planning Area and increase light and glare. (Less than Significant)

Construction of new buildings within the Planning Area could result in projects both larger and taller than existing buildings. These new buildings would include exterior and interior lighting. In addition, the Specific Plan includes several guidelines that promote additional lighting for pedestrian safety, decorative purposes, and integration of the overall character. Although lighting would generally be similar to existing lighting in Downtown, this lighting could increase levels of nighttime light and glare that could adversely affect nighttime views in the Planning Area. Daytime glare is caused by light reflections from building material such as reflective glass and polished surfaces and pavement. During daytime hours, the amount of glare depends on the intensity and direction of sunlight. Glare can create hazards to motorists and nuisances for pedestrians and other viewers.

The Specific Plan recommends the following guidelines that would address potential light and glare impacts: specify exterior lighting where the cone of light and/or glare from the lighting element is kept entirely on the property or below the top of any fence, edge or wall; verify that fixtures do not cast light directly into adjacent residential windows; a translucent or optical lens diffuser globe or shield is recommended; balance the need to provide illumination and security with the desire to maintain the ambience of Downtown and minimize light pollution.

With implementation of the above Specific Plan guidelines at a project level, any nighttime or daytime light and glare impacts would be reduced to a less-than-significant level.

Mitigation: None Required.

Cumulative Impacts

Impact 4.A-5: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future projects, could potentially result in cumulatively considerable impacts to aesthetic resources. (Less than Significant)

The cumulative context for visual quality encompasses all other areas that are visible in the views of the Planning Area. In addition to Downtown, this would also include other nearby areas within the City of Napa that could be viewed in combination with the Planning Area. The County Facilities Master Plan is still in the planning phase. The Ritz-Carlton Napa Valley project would occur on the northwest corner of First Street and Silverado Trail (east of the Planning Area). This hotel

development has been approved but construction has not yet begun. Relocation of the transit center, currently under construction, is to occur outside of the Planning Area near the 4th Street and Burnell Street intersection. The Napa River-Napa Creek Flood Protection Project is still underway but several components in the Planning Area vicinity have already been completed (i.e., the new Soscol Avenue Bridge, the First Street bridge over Napa Creek, Third Street bridge over Napa River, railroad relocation). Components that are either underway or planned to occur in the near future include completion of Napa Creek improvements, railroad relocation, bypass excavation work and construction of the Oxbow floodwalls, construction of the flood wall and pump station on the east side of Napa River, and construction of new floodwalls and levees north of the Oxbow Bypass.

As analyzed in this section, development facilitated by the proposed Specific Plan would not result in a significant impact related to views, scenic resources, visual character, or light and glare. Furthermore, development in areas surrounding the Planning Area would likely be subject to the design guidelines contained within the City's General Plan and other applicable guidelines and would require separate environmental and/or architectural review by the City. This process would reduce or mitigate any potential impacts to visual quality that could result from the construction of other nearby projects. Therefore, the implementation of the Specific Plan would not combine with, or add to, any potential adverse aesthetic impacts that may be associated with other cumulative development. Even if other future projects would result in significant cumulative effects, the contribution from the proposed project would not rise to the level of significance since the proposed Specific Plan would generally improve the visual quality and cohesiveness of the Planning Area.

Based on the information in this section and for the reasons summarized above, development facilitated by the Specific Plan would not contribute to any significant adverse cumulative visual quality impacts when considered together with past, present, pending and reasonably foreseeable development.

Mitigation: None Required.

References – Aesthetics

California Department of Transportation (Caltrans), Eligible and Officially Designated Routes, http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm, Accessed February 4, 2010.

City of Napa, 2008, Design Guidelines for the Napa Abajo/Fuller Park Historic District, available online at http://www.cityofnapa.org/images/CDD/planningdivisiondocs/libraryofdocuments/designguidelinesforthenapaabajofullerparkhistdist1.pdf, accessed August 22, 2011.

City of Napa, Napa Community Redevelopment Agency, Five-Year Implementation Plan prepared pursuant to Article 16.5 of the Community Redevelopment Law for fiscal years 2010-11 through 2014-2015 for the redevelopment plans for the Parkway Plaza Redevelopment Project Area & Soscol Gateway Redevelopment Project Area, June 15, 2010.

4.B Air Quality and Greenhouse Gases

This section describes the existing air quality in Napa, reviews applicable regulatory requirements and evaluates the potential impacts associated with the implementation of the Downtown Napa Specific Plan. Specifically, the section discusses the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations of the type and quantity of emissions that would be generated by the construction and operation of development proposed by the project. This section considers the effects of emissions of criteria air pollutants, odors, toxic air contaminants (TACs) and greenhouse gases (GHGs).

Setting

Regulatory Setting

Established federal, state, and regional regulations provide the framework for analyzing and controlling air pollutant emissions and thus general air quality. The United States Environmental Protection Agency (EPA) is responsible for implementing the programs established under the federal Clean Air Act, such as establishing and reviewing the federal ambient air quality standards and judging the adequacy of State Implementation Plans (SIP). However, the EPA has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented. In California, the California Air Resources Board (ARB) is responsible for establishing and reviewing the state ambient air quality standards, developing and managing the California SIP, securing approval of this plan from U.S. EPA, and identifying TACs. ARB also regulates mobile emissions sources in California, such as construction equipment, trucks and automobiles, and oversees the activities of air quality management districts, which are organized at the county or regional level. An air quality management district is primarily responsible for regulating stationary emissions sources at facilities within its geographic areas and for preparing the air quality plans that are required under the federal Clean Air Act and California Clean Air Act. The Bay Area Air Quality Management District (BAAQMD) is the regional agency with regulatory authority over emission sources in the nine county San Francisco Bay Area (Bay Area), which includes all of San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Marin and Napa counties and the southern half of Sonoma and southwestern half of Solano counties.

The regulatory setting for criteria air pollutants, odors, TACs and GHGs, is discussed below.

Regulatory Setting for Criteria Pollutants

As required by the federal Clean Air Act passed in 1970, the U.S. EPA has identified six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. EPA calls these pollutants criteria air pollutants because the agency has regulated them by developing specific public health and welfare-based criteria as the foundation for setting permissible levels. Ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM) and lead are the six criteria air pollutants.

Ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving volatile organic compounds (VOCs, also called reactive organic gases (ROG)), such as xylene, and nitrogen oxides (NOx), such as nitric oxide. ROG and NOx are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours. Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NOx under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer and fall when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone. Ground level ozone in conjunction with suspended particulate matter in the atmosphere leads to hazy conditions generally termed as "smog."

Because of the number of state and federal standard exceedances (described in more detail below), ozone is the pollutant of greatest concern in the Bay Area. Bay Area counties experience most ozone exceedances in the months of April through October.

Nitrogen Dioxide. Nitrogen dioxide is an air quality concern because it acts a respiratory irritant and is a precursor of ozone. Nitrogen dioxide is produced by fuel combustion in motor vehicles, industrial stationary sources (such as industrial activities), ships, aircraft and rail transit.

Sulfur Dioxide (SO_2). Sulfur dioxide is a combustion product of sulfur or sulfur-containing fuels such as coal and oil, which are restricted in the Bay Area. Its health effects include breathing problems and may cause permanent damage to lungs. SO_2 is an ingredient in acid rain (acid aerosols), which can damage trees, lakes and property. Acid aerosols can also reduce visibility.

Particulate Matter. PM10 and PM2.5 consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. A micron is one-millionth of a meter, or less than one-25,000th of an inch. For comparison, human hair is 50 microns or larger in diameter. PM10 and PM2.5 represent particulate matter of sizes that can be inhaled into the air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of aerosol-producing industrial and agricultural operations, fuel combustion and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles (PM2.5) of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility. Large dust particles (diameter greater than 10 microns) settle out rapidly and are easily filtered by human breathing passages. This large dust is of more concern as a soiling nuisance rather than a health hazard. The remaining fraction, PM10 and PM2.5, are a health concern particularly at levels above the federal and state ambient air quality standards. PM2.5 (including diesel exhaust particles) is thought to have greater effects on health, because

these particles are so small and thus, are able to penetrate to the deepest parts of the lungs. Scientific studies have suggested links between fine particulate matter and numerous health problems including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing. Recent studies have shown an association between morbidity and mortality and daily concentrations of particulate matter in the air. Children are more susceptible to the health risks of PM10 and PM2.5 because their immune and respiratory systems are still developing.

Mortality studies since the 1990s have shown a statistically significant direct association between mortality (premature deaths) and daily concentrations of particulate matter in the air. Despite important gaps in scientific knowledge and continued reasons for some skepticism, a comprehensive evaluation of the research findings provides persuasive evidence that exposure to fine particulate air pollution has adverse effects on cardiopulmonary health (Dockery and Pope 2006). The ARB has estimated that achieving the ambient air quality standards for PM10 could reduce premature mortality rates by 6,500 cases per year (ARB, 2002).

PM10 emissions in the project area are mainly from urban sources, dust suspended by vehicle traffic and secondary aerosols formed by reactions in the atmosphere. Particulate concentrations near residential sources generally are higher during the winter, when more fireplaces are in use and meteorological conditions prevent the dispersion of directly emitted contaminants.

Lead. Leaded gasoline (currently phased out), paint (houses, cars), smelters (metal refineries), manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects; children are at special risk. Some lead-containing chemicals cause cancer in animals.

Carbon Monoxide. Ambient carbon monoxide concentrations normally are considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence carbon monoxide concentrations. Under inversion conditions, carbon monoxide concentrations may be distributed more uniformly over an area that may extend some distance from vehicular sources. When inhaled at high concentrations, carbon monoxide combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease or anemia, as well as for fetuses.

Carbon monoxide concentrations have declined dramatically in California due to existing controls and programs. Most areas of the state including the Station Area Plan region have no problem meeting the carbon monoxide state and federal standards. CO measurements and modeling were important in the early 1980s when CO levels were regularly exceeded throughout California. In more recent years, CO measurements and modeling have not been a priority in most California air districts due to the retirement of older polluting vehicles, fewer emissions from new vehicles and improvements in fuels. The clear success in reducing CO levels is evident in the first paragraph of the executive summary of the California Air Resources Board *2004 Revision to the California*

State Implementation Plan for Carbon Monoxide Updated Maintenance Plan for Ten Federal Planning Areas (ARB, 2004), shown below:

> "The dramatic reduction in carbon monoxide (CO) levels across California is one of the biggest success stories in air pollution control. Air Resources Board (ARB or Board) requirements for cleaner vehicles, equipment and fuels have cut peak CO levels in half since 1980, despite growth. All areas of the State designated as non-attainment for the federal 8-hour CO standard in 1991 now attain the standard, including the Los Angeles urbanized area. Even the Calexico area of Imperial County on the congested Mexican border had no violations of the federal CO standard in 2003. Only the South Coast and Calexico continue to violate the more protective State 8-hour CO standard, with declining levels beginning to approach that standard."

Ambient Air Quality Standards. Regulation of criteria air pollutants is achieved through both national and state ambient air quality standards and emissions limits for individual sources. Regulations implementing the federal Clean Air Act and its subsequent amendments established national ambient air quality standards (national standards) for the six criteria pollutants. California has adopted more stringent state ambient air quality standards for most of the criteria air pollutants. In addition, California has established state ambient air quality standards for sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. Because of the meteorological conditions in the state, there is considerable difference between state and federal standards in California, as shown in **Table 4.B-1**. The table also summarizes the principal sources for each pollutant.

The ambient air quality standards are intended to protect the public health and welfare, and they incorporate an adequate margin of safety. They are designed to protect those segments of the public most susceptible to respiratory distress, known as sensitive receptors, including asthmatics, the very young, elderly and people weak from other illness or disease, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels somewhat above the ambient air quality standards before adverse health effects are observed.

Attainment Status. Under amendments to the federal Clean Air Act, U.S. EPA has classified air basins, or portions thereof, as either "attainment" or "non-attainment" for each criteria air pollutant, based on whether or not the national standards have been achieved. The California Clean Air Act, which is patterned after the federal Clean Air Act, also requires areas to be designated as "attainment" or "non-attainment" for the state standards. Thus, areas in California have two sets of attainment / non-attainment designations: one set with respect to the national standards and one set with respect to the state standards. **Table 4.B-1** also shows the attainment status of the Bay Area with respect to the national and state ambient air quality standards for different criteria pollutants.

Air Quality Plans. The 1977 Clean Air Act amendments require that regional planning and air pollution control agencies prepare a regional Air Quality Plan to outline the measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve all standards specified in the Clean Air Act. The 1988 California Clean Air Act also requires development of air quality plans and strategies to meet state air quality standards in areas

TABLE 4.B-1
AMBIENT AIR QUALITY STANDARDS AND BAY AREA ATTAINMENT STATUS

Pollutant	Averaging Time	State Standard	Bay Area Attainment Status for California Standard	Federal Primary Standard	Bay Area Attainment Status for Federal Standard	Major Pollutant Sources
Ozone	8 hour	0.070 ppm	Non-Attainment	0.075 ppm	Non-Attainment	Formed when ROG and NOx react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial/ industrial mobile equipment.
	1 hour	0.090 ppm	Non-Attainment	---	---	
Carbon Monoxide	8 hour	9.0 ppm	Attainment	9.0 ppm	Attainment	Internal combustion engines, primarily gasoline-powered motor vehicles
	1 Hour	20 ppm	Attainment	35 ppm	Attainment	
Nitrogen Dioxide	Annual Average	0.030 ppm	---	0.053 ppm	Attainment	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads
	1 Hour	0.180 ppm	Attainment	0.100 ppm	Unclassified	
Sulfur Dioxide	Annual Average	---	---	0.03 ppm	Attainment	Fuel combustion, chemical plants, sulfur recovery plants and metal processing
	24 Hour	0.04 ppm	Attainment	---	Attainment	
	1 Hour	0.25 ppm	Attainment	0.075 ppm	Attainment	
Particulate Matter (PM10)	Annual Arithmetic Mean	20 μg/m3	Non-Attainment	---	---	Dust- and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays)
	24 hour	50 μg/m3	Non-Attainment	150 μg/m3	Unclassified	
Particulate Matter (PM2.5)	Annual Arithmetic Mean	12 μg/m3	Non-Attainment	15 μg/m3	Attainment	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.
	24 hour	---	---	35 μg/m3	Non-Attainment	
Lead	Calendar Quarter	---	---	1.5 μg/m3	Attainment	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	30 Day Average	1.5 μg/m3	Attainment	---	---	
Hydrogen Sulfide	1 hour	0.03 ppm	Unclassified	No Federal Standard	---	Geothermal Power Plants, Petroleum Production and refining
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	Unclassified	No Federal Standard	---	See PM2.5.

NOTE: ppm=parts per million; and g/m3=micrograms per cubic meter

SOURCE: Bay Area Air Quality Management District, 2010a, available at http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm as of August 23, 2010, California Air Resources Board, 2009a. ARB Fact Sheet: Air Pollution Sources, Effects and Control, http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm, page last reviewed December 2009

designated as non-attainment (with the exception of areas designated as non-attainment for the state PM standards). Maintenance plans are required for attainment areas that had previously been designated non-attainment in order to ensure continued attainment of the standards. Air quality plans developed to meet federal requirements are referred to as State Implementation Plans.

For state air quality planning purposes, the Bay Area is classified as a serious non-attainment area for the one-hour ozone standard. The "serious" classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the Bay Area update the Clean Air Plan (CAP) every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data. The Bay Area's record of progress in implementing previous measures must also be reviewed. Bay Area plans are prepared with the cooperation of the Metropolitan Transportation Commission (MTC), and the Association of Bay Area Governments (ABAG). On September 15, 2010, the BAAQMD adopted the most recent revision to the Clean Air Plan - the *Bay Area 2010 Clean Air Plan* (BAAQMD, 2010b). The *Bay Area 2010 Clean Air Plan* serves to:

- Update the *Bay Area 2005 Ozone Strategy* in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone;
- Consider the impacts of ozone control measures on particulate matter, air toxics, and greenhouse gases in a single, integrated plan;
- Review progress in improving air quality in recent years; and
- Establish emission control measures to be adopted or implemented in the 2010 – 2012 timeframe.

Bay Area Air Quality Management District (BAAQMD) Rules and Regulations. The BAAQMD is the regional agency responsible for rulemaking, permitting and enforcement activities affecting stationary sources in the Bay Area. Specific rules and regulations adopted by the BAAQMD limit the emissions that can be generated by various activities, and identify specific pollution reduction measures that must be implemented in association with various activities. These rules regulate not only emissions of the six criteria air pollutants, but also toxic emissions and acutely hazardous non-radioactive materials emissions.

Emissions sources subject to these rules are regulated through the BAAQMD's permitting process and standards of operation. Through this permitting process, including an annual permit review, the BAAQMD monitors generation of stationary emissions and uses this information in developing its air quality plans. Any sources of stationary emissions constructed as part of a proposed project would be subject to the BAAQMD *Rules and Regulations*. Both federal and state ozone plans rely upon stationary source control measures set forth in BAAQMD's *Rules and Regulations.*

With respect to the construction activities associated with project development, applicable BAAQMD regulations would relate to portable equipment (e.g., concrete batch plants, and gasoline- or diesel-powered engines used for power generation, pumps, compressors, pile drivers, and cranes), architectural coatings and paving materials. Equipment used during project

construction would be subject to the requirements of BAAQMD Regulation 2 (Permits), Rule 1 (General Requirements) with respect to portable equipment unless exempt under Rule 2-1-105 (Exemption, Registered Statewide Portable Equipment); BAAQMD Regulation 8 (Organic Compounds), Rule 3 (Architectural Coatings); and BAAQMD Regulation 8 (Organic Compounds), Rule 15 (Emulsified and Liquid Asphalts). With respect to the operational phase of the project, BAAQMD Regulation 2, *Permits,* would apply to any new or modified stationary sources within the planning area.

Regulatory Setting for Odors

As described by the BAAQMD in its revised *CEQA Air Quality Guidelines* (BAAQMD, 2010c), odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency and intensity of the source; wind speed and direction; and the sensitivity of receptors. Odor impacts should be considered for any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. Generally, increasing the distance between the receptor and the odor source will mitigate odor impacts.

Regulatory Setting for Toxic Air Contaminants (TACs)

TACs are regulated under both state and federal laws. Federal laws use the term "Hazardous Air Pollutants" (HAPs) to refer to the same types of compounds that are referred to as TACs under state law. Both terms encompass essentially the same compounds. Under the 1990 Clean Air Act Amendments, 189 substances are regulated as HAPs.

With respect to state law, in 1983 the California legislature adopted Assembly Bill 1807 (AB 1807), which establishes a process for identifying TACs and provides the authority for developing retrofit air toxics control measures on a statewide basis. Air toxics in California may also be regulated because of another state law, the Air Toxics "Hot Spots" Information and Assessment Act of 1987, or Assembly Bill 2588 (AB 2588). Under AB 2588, TACs from individual facilities must be quantified and reported to the local air pollution control agency. The facilities are then prioritized by the local agencies based on the quantity and toxicity of these emissions, and on their proximity to areas where the public may be exposed. High priority facilities are required to perform a Health Risk Screening Assessment (HRSA), and if specific risk thresholds are exceeded, they are required to communicate the results to the public in the form of notices and public meetings. Depending on the health risk levels, emitting facilities can be required to implement varying levels of risk reduction measures. ARB identified over 729 TACs, including the 189 federal HAPs, under AB 2588.

The ARB identified diesel particulate matter (DPM) as a toxic air contaminant in 1998, primarily based on evidence demonstrating cancer effects in humans (ARB, 1998). The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources such as trucks and buses are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways. The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other toxic air pollutant routinely measured in the region. ARB estimated the average Bay Area cancer risk from diesel particulate, based on a population-weighted average ambient diesel particulate concentration, at about 480 in one million, as of 2000. The risk from diesel particulate matter declined from 750 in one million in 1990 to 570 in one million in 1995; by 2000, ARB estimated the average statewide cancer risk from DPM at 540 in one million (ARB, 2009b).

In 2000, ARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. As part of the Plan, ARB in 2008 approved a new regulation for existing heavy-duty diesel vehicles that will require retrofitting and replacement of vehicles (or their engines) over time such that by 2023, all vehicles must have a 2010 model year engine or equivalent. The regulation is anticipated to result in an 80 percent decrease in statewide diesel health risk in 2020 from the 2000 risk. Additional regulations apply to new trucks and to diesel fuel. Despite these reductions, ARB recommends that proximity to sources of DPM emissions be considered in the siting of new sensitive land uses.

The ARB adopted the *Air Quality and Land Use Handbook* (ARB, 2005) to provide guidance to planning agencies and air districts for considering potential impacts to sensitive land uses proposed in proximity to TACs emission source(s). The goal of the guidance document is to protect sensitive receptors, such as children, seniors, and acutely ill and chronically ill persons, from exposure to TACs emissions. A few of ARB's siting guidelines include the following: (1) avoid siting sensitive receptors within 500 feet of freeways and high-traffic roads (i.e., roads within urbanized areas carrying more than 100,000 vehicles per day); (2) avoid siting sensitive receptors within 1,000 feet of an applicable distribution center; and (3) avoid siting sensitive receptors within 300 feet of a dry cleaning facility that use the chemical perchloroethylene. The recommendations provided are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts.

BAAQMD is responsible for administering federal and state regulations related to TACs. Under federal law, these regulations include National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Maximum Achievable Control Technology (MACT) for affected sources. BAAQMD also administers the state regulations AB1807 and AB2588 which were discussed above. In addition, the agency requires that new or modified facilities that emit TACs perform air toxics screening analyses as part of the permit application. TAC emissions from new and modified sources are limited through the air toxics new source review program, which superseded the BAAQMD Risk Management Policy, in BAAQMD Regulation 2, Rule 5 for New Source Review of Toxic Air Contaminants. Sources must use the Best Available Control Technology for Toxics (T-BACT) if an individual source cancer risk of greater than 1 in a million, or a chronic hazard index greater than 0.20, is identified in health risk modeling.

Regulatory Setting for Greenhouse Gases

Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). The accumulation of GHGs in the atmosphere has been linked to global climate change. Global climate change is a change in the average weather conditions on earth that can be measured by wind patterns, storms, precipitation, and temperature. GHGs include all of the following naturally-occurring and anthropogenic (man-made) gases: carbon dioxide (CO_2), methane, nitrous oxide (N_2O), sulfur hexafluoride, perfluorocarbons, hydrofluorocarbons and nitrogen trifluoride (NF_3) (California Health and Safety Code §38505(g)). CO_2 is the reference gas for climate change. To account for the warming potential of GHGs, and to combine emissions of gases with differing properties, GHG emissions are typically quantified and reported as CO_2 equivalents (CO_2e).

State GHG Regulations

In September 2002 when Governor Gray Davis signed Assembly Bill (AB) 1493 requiring the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the state.

In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emission of GHG would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32 (AB 32). In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. In adopting this legislation (commonly known as "AB 32"), the State Legislature declared that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources and the environment of California." Further, the Legislature found that "the potential adverse impacts 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 resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health-related problems." The Legislature added that "[g]lobal warming will have detrimental effects on some of California's largest industries" and "increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the state."

AB 32 initiated a long-term program for "the development of [GHG] emissions reduction measures."[1] It "creates a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in

[1] As defined under AB 32, greenhouse gas emissions include the following: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride.

California, with the overall goal of restoring emissions to 1990 levels by the year 2020."[2] AB 32 recognizes that such an ambitious effort requires careful planning and a well thought out set of strategies. Accordingly, AB 32 delegated the authority for its implementation to the ARB and directs ARB to enforce the statewide cap that would begin phasing in by 2012. Among other requirements, AB 32 required ARB to (1) identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020, and (2) develop and implement a Scoping Plan to be implemented by January 1, 2012.

In November 2007, ARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent)[3]. Accordingly, 427 MMTs of CO_2 equivalent was established as the emissions limit for 2020. For comparison, ARB's estimate for 2000 baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions for 2020 were projected to be 596 MMTs. Therefore to comply with AB 32's mandate, GHG emission would need to be reduced from 596 MMTs (i.e., 2020 "business as usual") to 427 MMTs (the 1990 level), which is a reduction of 30 percent. This latter forecast did not take any credit for reductions from measures included in the AB 32 Scoping Plan, including the Pavley GHG emissions standards for vehicles, full implementation of the Renewables Portfolio Standard beyond current levels of renewable energy, or the solar measures.

Under AB 32, ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are deemed discrete early action measures in that they are regulatory and enforceable by January 1, 2010. ARB estimates that the 44 recommendations will result in reductions of at least 42 MMTs by 2020, representing approximately 25 percent of the 2020 target.

In December 2007, ARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plants, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO_2 emissions in the State.

On December 11, 2008, ARB adopted a *Climate Change Scoping Plan* (ARB, 2008) to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. These measures, shown below in **Table 4.B-2** by sector, also put the state on a path to meet the long-term 2050 goal

2 Written on a public notice prepared by the staff of the California Air Resources Board (ARB) in connection with a meeting to consider "early discrete actions" related to AB 32 on October 25, 2007.

3 On a national level, the EPA's Endangerment Finding stated that electricity generation is the largest emitting sector (34%), followed by transportation (28%), and industry (19%).

TABLE 4.B-2
LIST OF RECOMMENDED ACTIONS BY SECTOR

Measure No.	Measure Description	GHG Reductions (Annual Million Metric Tons CO_2e)
Transportation		
T-1	Pavley I and II – Light Duty Vehicle Greenhouse Gas Standards	31.7
T-2	Low Carbon Fuel Standard (Discrete Early Action)	15
T-3[1]	Regional Transportation-Related Greenhouse Gas Targets	5
T-4	Vehicle Efficiency Measures	4.5
T-5	Ship Electrification at Ports (Discrete Early Action)	0.2
T-6	Goods Movement Efficiency Measures. • Ship Electrification at Ports • System-Wide Efficiency Improvements	3.5
T-7	Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	0.93
T-8	Medium- and Heavy-Duty Vehicle Hybridization	0.5
T-9	High Speed Rail	1
Electricity and Natural Gas		
E-1	Energy Efficiency (32,000 GWh of Reduced Demand) • Increased Utility Energy Efficiency Programs • More Stringent Building & Appliance Standards Additional Efficiency and Conservation Programs	15.2
E-2	Increase Combined Heat and Power Use by 30,000 GWh (Net reductions include avoided transmission line loss)	6.7
E-3	Renewables Portfolio Standard (33% by 2020)	21.3
E-4	Million Solar Roofs (including California Solar Initiative, New Solar Homes Partnership and solar programs of publicly owned utilities) • Target of 3000 MW Total Installation by 2020	2.1
CR-1	Energy Efficiency (800 Million Therms Reduced Consumptions) • Utility Energy Efficiency Programs • Building and Appliance Standards • Additional Efficiency and Conservation Programs	4.3
CR-2	Solar Water Heating (AB 1470 goal)	0.1
Green Buildings		
GB-1	Green Buildings	26
Water		
W-1	Water Use Efficiency	1.4†
W-2	Water Recycling	0.3†
W-3	Water System Energy Efficiency	2.0†
W-4	Reuse Urban Runoff	0.2†
W-5	Increase Renewable Energy Production	0.9†
W-6	Public Goods Charge (Water)	TBD†
Industry		
I-1	Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	TBD
I-2	Oil and Gas Extraction GHG Emission Reduction	0.2
I-3	GHG Leak Reduction from Oil and Gas Transmission	0.9
I-4	Refinery Flare Recovery Process Improvements	0.3
I-5	Removal of Methane Exemption from Existing Refinery Regulations	0.01
Recycling and Water Management		
RW-1	Landfill Methane Control (Discrete Early Action)	1
RW-2	Additional Reductions in Landfill Methane • Increase the Efficiency of Landfill Methane Capture	TBD†

TABLE 4.B-2
LIST OF RECOMMENDED ACTIONS BY SECTOR (Continued)

Measure No.	Measure Description	GHG Reductions (Annual Million Metric Tons CO_2e)
Recycling and Water Management (cont.)		
RW-3	High Recycling/Zero Waste • Commercial Recycling • Increase Production and Markets for Compost • Anaerobic Digestion • Extended Producer Responsibility • Environmentally Preferable Purchasing	9†
Forests		
F-1	Sustainable Forest Target	5
High Global Warming Potential (GWP) Gases		
H-1	Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Services (Discrete Early Action)	0.26
H-2	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	0.3
H-3	Reduction of Perfuorocarbons in Semiconductor Manufacturing (Discrete Early Action)	0.15
H-4	Limit High GWP Use in Consumer Products Discrete Early Action (Adopted June 2008)	0.25
H-5	High GWP Reductions from Mobile Sources • Low GWP Refrigerants for New Motor Vehicle Air Conditioning Systems • Air Conditioner Refrigerant Leak Test During Vehicle Smog Check • Refrigerant Recovery from Decommissioned Refrigerated Shipping Containers • Enforcement of Federal Ban on Refrigerant Release during Servicing or Dismantling of Motor Vehicle Air Conditioning Systems	3.3
H-6	High GWP Reductions from Stationary Sources • High GWP Stationary Equipment Refrigerant Management Program: - Refrigerant Tracking/Reporting/Repair Deposit Program - Specifications for Commercial and Industrial Refrigeration Systems • Foam Recovery and Destruction Program • SF Leak Reduction and Recycling in Electrical Applications • Alternative Suppressants in Fire Protection Systems • Residential Refrigeration Early Retirement Program	10.9
H-7	Mitigation Fee on High GWP Gases	5
Agriculture		
A-1	Methane Capture at Large Dairies	1.0†

[1] This is not the SB 375 regional target. ARB will establish regional targets for each Metropolitan Planning Organization (MPO) region following the input of the regional targets advisory committee and a consultation process with MPO's and other stakeholders per SB 375

† GHG emission reduction estimates are not included in calculating the total reductions needed to meet the 2020 target

of reducing California's GHG emissions to 80 percent below 1990 levels. ARB has until January 1, 2011, to adopt the necessary regulations to implement that plan. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020. ARB is currently drafting regulations to implement the plan. The status of the Scoping Plan is uncertain; in January 2011, a superior court issued a tentative ruling that ARB's environmental analysis for the Scoping Plan did not comply with CEQA in various respects. At this time, it is unknown whether the Court will direct ARB to rescind its approval of the Scoping Plan, whether ARB will appeal such a ruling, or whether the Court will adopt a final ruling that is

consistent with its tentative ruling. Nevertheless, the measures set forth in Table 4.B-2 provide useful information for purposes of identifying measures to comply with the targets in AB 32.

Senate Bill 1078 and 107 and Executive Order S-14-08 and S-21-09. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, then-Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Portfolio Standard (RPS) to 33 percent renewable power by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the ARB under its AB 32 authority to enact regulations to help the state meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. The 33 percent by 2020 goal was codified in April 2011 with Senate Bill X1-2, which was signed by Governor Edmund G. Brown, Jr. This new RPS preempts the ARB 33 percent Renewable Electricity Standard and applies to all electricity retailers in the state including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new RPS goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.

Title 24. Although not originally intended to reduce greenhouse gases, California Code of Regulations (CCR) Title 24 Party 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. Since then, Title 24 has been amended with recognition that energy-efficient buildings that require less electricity and reduce fuel consumption, which in turn decreases GHG emissions.

SB 1368. Passed in 2006, SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 reduces carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as combined cycle natural gas plants. Overall, SB 1368 will dramatically lower GHG emissions associated with California's energy demand as it will effectively prohibit California utilities from purchasing power from out-of-state producers that cannot satisfy the required performance standard.

SB 375. In September of 2008, the California legislature adopted SB 375, legislation which: (1) relaxes CEQA requirements for some housing projects that meet goals for reducing GHG emissions and (2) requires the regional governing bodies in each of the state's major metropolitan areas to adopt, as part of their regional transportation plan, "sustainable community strategies" that will meet the region's target for reducing GHG emissions. SB 375 creates incentives for implementing the sustainable community strategies by allocating federal transportation funds only

to projects that are consistent with the emissions reductions. SB 375 also directs ARB to develop regional GHG emission reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035. Local governments would then devise strategies for housing development, road-building and other land uses to shorten travel distances, reduce vehicular travel time and meet the new targets. If regions develop these integrated land use, housing, and transportation plans, residential projects that conform to the sustainable community strategy (and therefore contribute to GHG reduction) can have a more streamlined environmental review process.

OPR Amendments to the CEQA Guidelines. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the state CEQA *Guidelines* for GHG emissions, as required by Public Resources Code section 21083.05 (Senate Bill 97) (OPR, 2009) to provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The Natural Resources Agency adopted the CEQA *Guidelines* Amendments with minor, non-substantial changes on December 31, 2009 and transmitted the Adopted Amendments and the entire rulemaking file to the Office of Administrative Law (OAL). The adopted *Guidelines* became effective on March 18, 2010 (OPR, 2010).

The proposed amendments suggest relatively modest changes to various portions of the existing CEQA *Guidelines*. Modifications address those issues where analysis of GHG emissions may differ in some respects from more traditional CEQA analysis.

Adopted amendments include a new section (15064.4) to assist lead agencies in determining the significance of the GHG impacts. This section urges lead agencies to quantify, where possible, the GHG emissions of projects. In addition to quantification, this section recommends consideration of several other qualitative factors that may be used in determination of significance including:

1. the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;

2. whether the GHG emissions exceed a threshold of significance that the lead agency determines applies to the project; and

3. the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The proposed amendments include a new subdivision 15064.7(c) to clarify that in developing thresholds of significance, a lead agency may appropriately review thresholds developed by other public agencies, including the ARB's recommended CEQA Thresholds, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence.

The proposed amendments also include a new subdivision 15130(d) to emphasize that the effects of GHG emissions are cumulative, and should be analyzed when the incremental contribution of those emissions may be cumulatively considerable.

In addition, the proposed amendments add a new set of environmental checklist questions (VII. Greenhouse Gas Emissions) to the CEQA *Guidelines* Appendix G. The new set includes the following two questions:

a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHG?

Local GHG Regulations

The *Draft Napa Countywide Community Climate Action Plan* (Climate Protection Campaign and MIG, 2009) was published in September 2010. This *Draft Climate Action Plan* included a GHG inventory for Napa County, including the City of Napa, and identified GHG reduction measures that could be implemented in order to substantially reduce GHG emissions and meet the goal of 30 percent countywide GHG reduction by 2020. This reduction would result in 1990 levels of GHGs by 2020. For the City of Napa specifically, the quantified levels of GHGs for 1990 and 2020 business as usual forecast were 386,803 and 544,572 metric tons of CO_2e per year, respectively, which represents a reduction needed of 29 percent, or 157,769 metric tons of CO_2e per year.

Reduction measures identified in the *Draft Climate Action Plan* fall into two primary goals needed to achieve the above reduction targets:

1. Expand Transportation and Mobility Options: Shift transportation from fossil fueled single occupancy vehicles (cars and light trucks) to transit, walking, bicycling; increase use of renewably powered vehicles; encourage "smart growth" land use policies that reduce the need to travel; and invest in Napa County jobs to reduce commuting. 2020 target for this goal: 33 percent of the total emissions reductions required. Includes 18 percent reduction due to new California Clean Car Law.

2. Improve Buildings and Energy Efficiencies: Invest in widespread energy and water efficiency to reduce energy demand and emissions (primarily in existing buildings); reduce the carbon intensity of the energy that is used by investing in Napa County renewable energy sources. 2020 target for this goal: 67 percent of total emissions reductions required. This includes a 24 percent reduction resulting from efficiency improvements and a 43 percent reduction from development of a low carbon electricity and natural gas portfolio consisting of renewable energy sources.

City of Napa General Plan

The City of Napa General Plan, *Envision Napa 2020* (City of Napa, 1998), outlines policies, standards and programs that together provide a comprehensive, long-term plan for physical development within the City. Individual development projects proposed within the City must demonstrate general consistency with the goals and policies outlined within the General Plan, which articulates and implements the City's long-term vision as it pertains to housing, transportation, historic preservation, open space and other areas. The goal and policies applicable to air quality include the following:

Goal NR-5: To maintain acceptable levels of air quality in Napa.

Policy NR-5.1. The City shall encourage the use of mass transit, bicycle facilities, and pedestrian walkways in order to decrease use of private vehicles and thereby reduce emissions from mobile sources.

Policy NR-5.2. The City shall encourage land use patterns and management practices that conserve air and energy resources, such as mixed use development and provisions for local- serving commercial uses adjacent to neighborhoods.

Policy NR-5.3. The City shall promote energy conservation/energy efficiency improvement programs, which reduce energy demand from power-generating facilities which contribute to background levels of regional air emissions.

Policy NR-5.4. The City shall, during discretionary review, require that development proposals comply with federal and state air quality standards, or make findings that the project has overriding benefits to the community that outweigh nonattainment of the standards.

Policy NR-5.5. The City shall, during early consultation with project proponents, encourage project design that minimizes direct and indirect air emissions. Projects should consider the following air quality concerns:

a. Land use and design measures to encourage alternatives to the automobile and to conserve energy;

b. Land use and design measures to minimize exposure of sensitive receptors to odors, toxics, and criteria pollutants; and

c. Applicable BAAQMD rules, regulations, and permit requirements.

Policy NR-5.6. The City shall continue and, where appropriate, expand the use of synchronized traffic signals on roadways susceptible to emissions improvement through approach control.

Physical Setting

Climate and Meteorology

Atmospheric conditions such as wind speed, wind direction and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The climate of the Bay Area is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean. High-pressure systems are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, resulting in subsidence inversions. During summer and fall, locally generated emissions can, under the restraining influences of topography and subsidence inversions, cause conditions that are conducive to the formation of photochemical pollutants, such as ozone and secondary particulates, such as nitrates and sulfates. In the winter, the Pacific high pressure system shifts southward, allowing storms to pass through the area.

The predominant wind direction in Napa is northwesterly. In Napa, the heaviest rainfall occurs between November and April.

Existing Air Quality

Criteria Air Pollutants. The BAAQMD and ARB operate a regional monitoring network that measures the ambient concentrations of the six criteria air pollutants within the Bay Area. Existing and probable future levels of air quality in Napa can generally be inferred from ambient air quality measurements conducted by the BAAQMD at its nearby monitoring stations. Napa currently has one monitoring station that measures criteria pollutants, including ozone, PM10, carbon monoxide, and nitrogen dioxide. **Table 4.B-3** shows a five-year summary of monitoring data for ozone and PM10, the main pollutants of concern, from the Napa station. In addition, PM2.5 monitoring data from the Santa Rosa station have been included as representative concentrations in a nearby urban locale in the BAAQMD jurisdiction. The table also compares these measured concentrations with state and federal ambient air quality standards.

Toxic Air Contaminants. The ambient background of TACs is the combined result of many diverse human activities, including gasoline stations, automobiles, dry cleaners, industrial operations, hospital sterilizers, and painting operations. In general, mobile sources contribute more significantly to health risks than do stationary sources. Both BAAQMD and ARB operate a network of monitoring stations that measure ambient concentrations of certain TACs that are associated with strong health-related effects and are present in appreciable concentrations in the Bay Area, as in all urban areas. Ambient concentrations of TACs are similar throughout the urbanized areas of the Bay Area.

Greenhouse Gases. The California Energy Commission reports that California is the 12th to 16th largest emitter of CO_2 in the world and produced 492 million metric tons of CO_2e in 2004 (California Energy Commission, 2006). Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2004, accounting for 40.7 percent of total GHG emissions in the state. This category was followed by the electric power sector (including both in-state and out-of-state sources) (22.2 percent) and the industrial sector (20.5 percent). Methane, a highly potent GHG, results from off-gassing associated with agricultural practices and landfills. Notably, specific GHG emissions for the City of Napa are described under the "Local GHG Regulations" heading above.

Potential global warming impacts in California could include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Sensitive Land Uses

Some persons are considered more sensitive than others to air pollutants. The reasons for heightened sensitivity may include age, health problems, proximity to the emissions source, and duration of exposure to air pollutants. Land uses such as schools, hospitals, and convalescent

TABLE 4.B-3
AIR QUALITY DATA SUMMARY (2005-2009) FOR THE PROJECT AREA

Pollutant	Standard[a]	Monitoring Data by Year				
		2005	2006	2007	2008	2009
Ozone (Napa – Jefferson Street Station)						
Highest 1 Hour Average (ppm)[b]		0.091	**0.096**	0.074	**0.107**	**0.100**
Days over State Standard	0.09	0	1	0	1	1
Highest 8 Hour Average (ppm)[b]		0.067	**0.073**	0.064	**0.078**	**0.078**
Days over State Standard	0.07	0	2	0	2	3
Days over National Standard	0.075	0	0	0	2	1
Particulate Matter (PM10) (Napa – Jefferson Street Station)						
Highest 24 Hour Average – State/National ($\mu g/m^3$) [b,e]		40.3/38.4	**51.6**/48.6	50.4/48.0	50.0/47.4	**55.4**/51.7
Estimated days over State Standard[c]	50	0	5.1	0	0	6.5
Estimated days over National Standard[c]	150	0	0	0	0	0
State Annual Average[d]	20	17.9	**21.9**	**21.3**	**21.6**	18.5
Particulate Matter (PM2.5) (Santa Rosa – 5th Street Station)						
Highest 24 Hour Average – National ($\mu g/m^3$)[b]		33.6	**59.0**	32.0	30.8	29.0
Estimated days over National Standard[c]	35	0	3.1	0	0	0
State Annual Average[d]	12	7.6	9.2	7.6	8.6	NA
National Annual Average[d]	15	7.5	9.1	7.5	8.5	8.3

NOTE: NA = Adequate data was not available. Values in **Bold** exceed the respective air quality standard.

a Generally, state standards are not to be exceeded and federal standards are not to be exceeded more than once per year.

b ppm = parts per million; g/m^3 = micrograms per cubic meter.

c PM10 and PM2.5 are not measured every day of the year. "Number of samples" refers to the number of days in a given year during which PM10 and PM2.5 were measured at the monitoring stations.

d State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.

SOURCE: California Air Resources Board (ARB), 2010. *Summaries of Air Quality Data*, 2005-2009; http://www.arb.ca.gov/adam/topfour/topfour1.php

homes are considered to be relatively sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air-quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people are often at home for extended periods. Recreational land uses are moderately sensitive to air pollution, because vigorous exercise associated with recreation places a high demand on the human respiratory system.

Impacts and Mitigation Measures

Significance Criteria

According to Appendix G of the *CEQA Guidelines*, a project would generally have a significant effect on the environment if it would:

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

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

c) Result in a cumulatively considerable net increase of any nonattainment 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);

d) Expose sensitive receptors to substantial pollutant concentrations;

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

f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

g) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Approach to Analysis

In June 2010, BAAQMD adopted its revised *CEQA Air Quality Guidelines* (BAAQMD, 2010c). The 2010 BAAQMD CEQA Guidelines recommend that the assessment of operational air quality impacts associated with local plans, including Specific Plans, evaluate whether the plan in question is consistent with the most recently adopted air quality plan for the Bay Area. The Guidelines include the following two metrics for determining significance of criteria pollutant emissions impacts from local plans: (1) consistency with the so-called "control measures" contained in the current regional air quality plan; and (2) the projected rate of increase in vehicle miles traveled or vehicle trips would be less than or equal to projected population increase. Notably, the BAAQMD does not have a criteria pollutant threshold associated with construction activities for Specific Plans.

With respect to potential toxic air contaminants (TACs), potential existing and proposed sources of TACs and land use compatibility were assessed. Policies were also described to reduce potential TAC impacts in the Planning Area.

For odors, the Specific Plan must identify the location of existing and planned odor sources in the Planning Area. The Specific Plan must also include policies to reduce potential odor impacts in the Planning Area.

This EIR does discuss, for consideration by decision makers, estimated GHG emissions of the Specific Plan and the approaches to reduce those emissions. Notably, the BAAQMD does not have a GHG threshold associated with construction activities for Specific Plans. BAAQMD considers GHG impacts to be exclusively cumulative impacts (as does CAPCOA) and, as such, assessment of significance is based on a determination of whether the GHG emissions from the Specific Plan represent a cumulatively considerable contribution to the global atmosphere.

Impacts and Mitigation Measures

Impact 4.B-1: Development facilitated by the Specific Plan could potentially result in increased long-term emissions of criteria pollutants from increased vehicle traffic and onsite area sources. (Significant before Mitigation)

The most recently adopted air quality plan in the San Francisco Bay Area Air Basin is the *2010 Clean Air Plan* (CAP) (BAAQMD, 2010b). The 2010 CAP is a roadmap showing how the San Francisco Bay Area will achieve compliance with the state one-hour ozone standard as expeditiously as practicable, and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The control strategy includes stationary-source control measures to be implemented through BAAQMD regulations; mobile-source control measures to be implemented through incentive programs and other activities; and transportation control measures to be implemented through transportation programs in cooperation with the MTC, local governments, transit agencies, and others. The 2010 CAP also represents the Bay Area's most recent triennial assessment of the region's strategy to attain the state one-hour ozone standard. Under BAAQMD's methodology, a determination of consistency with the most recently adopted CAP, currently the 2010 CAP, must demonstrate that a plan or project not exceed the population or vehicle miles traveled (VMT) assumptions contained in the CAP and that the project or plan implements transportation control measures (TCMs) as applicable.

Criterion 1: Population Growth and Vehicle Miles Traveled Consistency

For a project to be consistent with the CAP, BAAQMD requires that the projected increase in VMT associated with a proposed project be less than the projected population increase. Because the Specific Plan vehicle trips would be distributed beyond the City of Napa, percentage increases of VMT and population are compared on a both a citywide and countywide basis.

According to *Projections 2009*, the Association of Bay Area Government's (ABAG) biennial forecast of population, housing, jobs, and income for the nine-county San Francisco Bay Region, the population of Napa County and the City of Napa is expected to continue to increase over the next 25 years. ABAG estimates that Napa County and the City of Napa will have populations of approximately 148,800 and 84,600 by 2035, respectively. As discussed in Section 4.J, *Population and Housing*, development under the Specific Plan would result in a population increase of approximately 1,379 persons. The addition of these residents to the 2035 countywide and citywide forecasts results in a total increase in population of 0.9 percent and 1.6 percent, respectively.

According to VMT data provided by Kimley-Horn and Associates, Inc., the Specific Plan would increase daily VMT by approximately 63,397 miles per day by the year 2035, or an annual increase of approximately 2756 miles per day. For 2035, the latest year available, traffic data shows VMT for Napa County and the City of Napa of 3,182,810 and 1,289,370 miles per day, respectively. The addition of project-related VMT to the 2035 countywide and citywide forecasts results in a total increase of 2.0 percent and 4.9 percent in the VMT for the proposed Specific Plan, respectively. Citywide, this equates to an annual increase of 0.2%.

Consequently, the rate of increase in VMT would be more than the rate of increase in population under the Specific Plan on both a countywide and citywide basis and would be considered inconsistent with the population and VMT assumptions of the CAP. It is important to note that the standards set by the CAP can be difficult for plans and communities to achieve, and are intended as goals to improve air quality rather than to prohibit development.

Criterion 2: Plan consistency with Transportation Control Measures contained in the Clean Air Plan

Air pollutant emissions are a function of human activity. The 1988 California Clean Air Act, Section 40919(d) requires regions to implement "transportation control measures to substantially reduce the rate of increase in passenger vehicle trips and miles traveled."

The Bay Area 2010 CAP contains 59 control measures aimed at reducing air pollution in the Bay Area. Many (18) of these measures address stationary sources and will be implemented by BAAQMD using its permit authority and are therefore not suited to implementation through local planning efforts. Sixteen other measures are a draft list of measures for further study and are not yet identified as feasible for implementation under the 2010 CAP. The remaining 25 measures are identified in **Table 4.B-4**. This table identifies each Control Strategy and correlates it to specific elements of the Specific Plan or presents justification for why the Strategy does not apply to the proposed Specific Plan. The proposed Specific Plan would be consistent with the Control Strategies contained in the 2010 CAP for the San Francisco Bay Area Air Basin.

Table 4.B-4 shows that the proposed Specific Plan generally would not disrupt or hinder implementation of any CAP control measures. BAAQMD has identified examples of how a plan may cause the disruption or delay of control measures, such as a project that may preclude an extension of a transit line or bike path or proposes excessive parking beyond parking requirements. Section 6.5 of the Specific Plan addresses transit service expansion in the Planning Area. Section 6.6 of the Specific Plan provides for improved pedestrian and bicycle facilities. Section 6.7 of the Specific Plan addresses provision of sufficient, but not excessive, parking availability in the Planning Area. These elements of the Specific Plan ensure that the two BAAQMD-identified examples of control measure disruption or delay would not occur under the proposed Specific Plan.

TABLE 4.B-4
CONTROL STRATEGIES OF THE 2010 CLEAN AIR PLAN

2010 CAP Control Strategy	Elements of the Specific Plan Consistent with the Strategy or Justification for Non-applicability
Transportation Control Measures	
TCM A: Improve Transit Services	Section 6.5 of the Specific Plan addresses potential transit improvements for the Planning Area.
TCM B: Improve System Efficiency	Not Applicable: This measure addresses infrastructure improvements to increase operational efficiencies on freeways and transit service (such as common fare payment systems) and are geared toward regional transit agencies and not local government.
TCM C: Encourage Sustainable Travel Behavior (i.e., voluntary employer-based trip reduction program)	Section 6.4 of the Specific Plan details recommended strategies to optimize the efficiency of the Planning Area's transportation system through Transportation Systems Management (TSM) and Transportation Demand Management (TDM) program.
TCM D: Support Focused Growth (Bicycle and Pedestrian friendliness)	Alternative transportation modes are addressed in Section 6.6 of the Specific Plan to create a more pedestrian and bicyclist friendly network.
TCM E: Implement Pricing Strategies	Parking management strategies are addressed in Section 6.7 of the Specific Plan, as well as additional pricing considerations under the TDM in Section 6.4 of the Specific Plan. Pricing strategies are not disclosed in the Specific Plan.
Mobile Source Control Measures	
MSM A-1: Promote Clean Fuel Efficient Vehicles	No such measures have been identified at this time. Mitigation Measure 4.B-1 described below identifies several strategies to meet this TCM.
MSM A-2: Zero Emission Vehicles	See MSM A-1 above.
MSM A-3: Green Fleets	Not Applicable: Development of the Planning Area would generally be retail, commercial or residential in nature and unlikely to accommodate a land use requiring a fleet of vehicles.
MSM A-4: Replacement or Repair of High-emitting Vehicles	Not Applicable: This Strategy addresses vehicle buy-back programs implemented by BAAQMD.
MSM B-1: Fleet Modernization for Medium and Heavy-Duty Trucks	Not Applicable: This Strategy addresses incentive programs for truck modernization which are implemented by BAAQMD or ARB.
MSM B-2: Low NOx retrofits in Heavy-Duty Trucks	Not Applicable: This Strategy addresses cash incentives for retrofits which are implemented by BAAQMD or ARB.
MSM B-3: Efficient Drive Trains	Not Applicable: This Strategy addresses development and demonstration programs in partnership with ARB and the California Energy Commission.
MSM C-1: Construction and Farming Equipment	Not Applicable: This Strategy addresses cash incentives for retrofits which are implemented by BAAQMD or ARB.
MSM C-2: Lawn & Garden Equipment	Not Applicable: This Strategy addresses voluntary exchange programs implemented by BAAQMD.
MSM C-3: Recreational Vessels	Not Applicable: This Strategy addresses voluntary exchange programs implemented by BAAQMD.
Land Use & Local Impact Measures	
LUM 1: Goods Movement	Section 6.3 of the Specific Plan discusses the accommodation of trucks in the Planning Area.
LUM 2: Indirect Source Review Rule	Not Applicable: This Strategy addresses implementation of an indirect source Rule by BAAQMD.
LUM 3: Updated CEQA Guidelines	This Strategy addresses updating of the CEQA Guidelines by BAAQMD (adopted in June 2010 and applied in this analysis).

TABLE 4.B-4 (Continued)
CONTROL STRATEGIES OF THE 2010 CLEAN AIR PLAN

2010 CAP Control Strategy	Elements of the Specific Plan Consistent with the Strategy or Justification for Non-applicability
Land Use & Local Impact Measures (cont.)	
LUM 4: Land Use Guidance	This strategy addresses updating land use planning documents such as the proposed Specific Plan and demonstrating consistency with air quality protection guidance such as the new BAAQMD CEQA Guidelines that are applied in this analysis.
LUM 5: Reduce Health Risk in Impacted Communities	Not Applicable: The Planning Area is not located in an area considered by the BAAQMD to be an "impacted community" with regard to airborne health risk exposure.
LUM 6: Enhanced Air Quality Monitoring	Not Applicable: This Strategy addresses air quality monitoring that is the purview of BAAQMD and/or ARB.
Energy & Climate Measures	
ECM 1: Energy Efficiency	Section 5.1 ("Green Building and Sustainability") of the Specific Plan identifies green and sustainable building design strategies, including energy efficiency and heat-island reduction measures, that should be considered for future development.
ECM 2: Renewable Energy	Section 5.1 ("Parking and Circulation Design") of the Specific Plan also encourages the installation of solar panels as a sustainable energy source.
ECM 3: Urban Heat Island Mitigation	See measure ECM 1 above.
ECM 4: Shade Tree Planting	See measure ECM 1 above.

Mitigation Measure 4.B-1: In order to be consistent with the MSM A-1 and MSM A-2 transportation control measures (TCMs) listed in Table 4.B-4, the City shall require that the following measures be included as potential Transportation Demand Management (TDM) strategies to be implemented by individual project applicants, where feasible and appropriate:

- Install charging units for electric vehicles at residences and businesses.
- Develop incentives for businesses to include preferential parking for electric and/or hybrid vehicles.

Significance after Mitigation: Significant and Unavoidable. With implementation of Mitigation Measure 4.B-1, the Specific Plan would be consistent with the BAAQMD TCMs. However, the rate of increase in VMT would be more than the rate of increase in population for the proposed Specific Plan and would be considered inconsistent with the population and VMT assumptions of the CAP. As the transportation strategies included in the Specific Plan and Mitigation Measure 4.B-1 represents the majority of available measures with which to reduce VMT, no further mitigation measures are available.

Impact 4.B-2: Development facilitated by the Specific Plan could potentially expose existing and proposed sensitive receptors to substantial levels of toxic air contaminants (TACs), which may lead to adverse health effects. (Significant before Mitigation)

Construction

TAC emissions from construction activities under the Specific Plan would be related to diesel particulate matter (DPM) emissions from heavy equipment operations during grading, excavation, building construction, and transportation activities. Health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. Existing and new residents would be occupying the site concurrently with onsite construction activities. Short-term construction activities could therefore expose sensitive receptors to levels that exceed applicable standards because of the close proximity between onsite diesel equipment and residences. This impact would be potentially significant.

Operations

Onsite Operational Permitted Stationary Source Emissions

Any land uses that would be developed under the Specific Plan that would include stationary sources that may emit TACs would be subject to BAAQMD permitting and Toxics Best Available Control Technology (T-BACT) requirements. BAAQMD would assess such sources for potential health risk impacts based on their potential to emit TACs. If it is determined that the sources would emit TACs in excess of BAAQMD's applicable threshold of significance, T-BACT would be implemented to reduce emissions. If the implementation of T-BACT would not reduce the risk below the threshold, then BAAQMD would deny the required permit. As a result, impacts associated with exposure of sensitive receptors to substantial toxic air emissions from stationary source operations would be less than significant.

Onsite Operational Mobile Source Emissions

Onsite mobile sources of TAC emissions would primarily be associated with the operation of diesel-fueled delivery trucks associated with commercial land uses proposed under the Specific Plan. ARB adopted an idling-restriction Airborne Toxic Control Measure (ATCM) for large commercial diesel-powered vehicles, which became effective February 1, 2005. In accordance with this measure, affected vehicles are required to limit idling to no longer than five minutes under most circumstances. Nonetheless, given that proposed onsite commercial land uses have not yet been identified and given the potential proximity of nearby sensitive receptors, exposure of nearby onsite receptors to mobile-source TACs associated with commercial activities is considered a potentially significant impact.

Land Use Compatibility

The Specific Plan would include residences, commercial uses, and hotels. The proposed residences would be considered sensitive receptors. Because of the sensitivity of such uses, an assessment of compatibility with surrounding land uses with respect to TAC emissions is provided below.

The *Air Quality and Land Use Handbook: A Community Health Perspective* (ARB 2005), which is advisory rather than regulatory, includes the following recommendations that may apply to the Specific Plan:

- Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads carrying 100,000 vehicles per day, or rural roads carrying 50,000 vehicles per day.

- Avoid siting new sensitive land uses within 300 feet of a large gasoline station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gasoline-dispensing facilities.

- Avoid siting new sensitive land uses within 300 feet of any dry-cleaning operation using perchloroethylene. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult the local air district. Do not site new sensitive land uses in the same building with dry-cleaning operations that use perchloroethylene.

- Obtain facility-specific information where there are questions about siting a sensitive land use close to an industrial facility, including the amount of pollutant emitted and its toxicity, distance to nearby receptors, and types of emissions controls in place.

There are no roadways in close proximity (500 feet) to the Planning Area that carry 50,000 to 100,000 vehicles per day. The siting of onsite proposed sensitive receptors would be consistent with the ARB recommendations listed above. However, there are residences that are proposed in close proximity to the California Northern Railroad (CNR) rail line, which includes sporadic diesel freight trips and the Napa Valley Wine Train. This land use compatibility would be potentially significant without mitigation.

Notably, in accordance with the BAAQMD Guidelines, when a residential development project is proposed within 1,000 feet of a stationary TAC source, the potential health risk to the project residents would be evaluated using BAAQMD's recommended screening criteria. If the project exceeds the screening criteria a project-specific health risk assessment (HRA) would be prepared to quantify the project-specific health risk; this requirement is incorporated in Mitigation Measure 4.B-2 for any projects to be developed under the Specific Plan that include residential uses. Projects to be developed under the Specific Plan would be required to implement any project-specific recommendations to reduce the potential health risk.

> **Mitigation Measure 4.B-2:** The City shall ensure that the Specific Plan design guidelines and development standards incorporate the following measures to reduce or avoid exposure of sensitive receptors to TACs:
>
> For construction activities, measures may include, but not limited to, the following:
>
> - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.

- Use new diesel engines that are designed to minimize DPM emissions (usually through the use of catalyzed particulate filters in the exhaust), or retrofitting older engines with catalyzed particulate filters which would reduce up to 85 percent of DPM emissions.

For operational activities, in order to comply with the *Air Quality and Land Use Handbook: A Community Health Perspective* (ARB 2005) and achieve an acceptable interior air quality level for sensitive receptors, appropriate measures, shall be incorporated into residential building design. For projects to be developed under the Specific Plan that include residential receptors within 1,000 feet of a source of TACs (stationary or CNR railroad), the appropriate measures shall include one of the following methods:

1. The project applicant shall retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the ARB and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents to TACs prior to issuance of a demolition, grading, or building permit. The HRA shall be submitted to the Planning Division for review and approval. The applicant shall implement the approved HRA recommendations, if any. If the HRA concludes that the air quality risks from nearby sources are at or below acceptable levels, then additional measures are not required.

2. The project applicant shall implement the following features that have been found to reduce the air quality risk to sensitive receptors and shall be included in the project construction plans. These shall be submitted to the Planning Division and the Building Division for review and approval prior to the issuance of a demolition, grading, or building permit and ongoing.

    a. Do not locate sensitive receptors near distribution center's entry and exit points.

    b. Do not locate sensitive receptors in the same building as a perchloroleythene dry cleaning facility.

    c. Maintain a 50' buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year).

    d. Install, operate and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, that meets the efficiency standard of the MERV 13. The HV system shall include the following features: Installation of a high efficiency filter and/or carbon filter to filter particulates and other chemical matter from entering the building. Either HEPA filters or ASHRAE 85% supply filters shall be used.

    e. Retain a qualified HV consultant or HERS rater during the design phase of the project to locate the HV system based on exposure modeling from the mobile and/or stationary pollutant sources.

    f. Maintain positive pressure within the building.

    g. Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air.

    h. Achieve a performance standard of at least 4 air exchanges per hour of recirculation

i. Achieve a performance standard of 0.25 air exchanges per hour of in unfiltered infiltration if the building is not positively pressurized.

j. Project applicant shall maintain, repair and/or replace HV system or prepare an Operation and Maintenance Manual for the HV system and the filter. The manual shall include the operating instructions and maintenance and replacement schedule. This manual shall be included in the CC&R's for residential projects and distributed to the building maintenance staff. In addition, the applicant shall prepare a separate Homeowners Manual. The manual shall contain the operating instructions and maintenance and replacement schedule for the HV system and the filters. It shall also include a disclosure to the buyers of the air quality analysis findings.

Significance after Mitigation: Less than Significant.

Impact 4.B-3: Development facilitated by the Specific Plan could potentially create objectionable odors affecting a substantial number of people. (Significant before Mitigation)

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency and intensity of the source; wind speed and direction; and the sensitivity of receptors. Odor impacts should be considered for any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities. The Specific Plan does not include the development of these types of facilities. However, commercial development could provide uses that may include sources of odorous emissions (e.g., food service) that could be perceived as offensive to some individuals. Regarding land use compatibility of locating new sensitive receptors, there are no substantial existing sources of odor identified in the vicinity of the Specific Plan.

Mitigation Measure 4.B-3: The City shall ensure that the Specific Plan design guidelines and development standards incorporate the following measures to reduce or avoid exposure of sensitive receptors to odors during development under the Specific Plan:

- Consider the odor-producing potential of land uses when the exact type of facility that would occupy areas zoned for commercial or mixed-use land uses is determined. Facilities that have the potential to emit objectionable odors would be located with appropriate buffers from existing and proposed sensitive receptors.

- Identify odor control devices within building permit applications to mitigate the exposure of receptors to objectionable odors if a potential odor-producing source is to occupy the Planning Area. The identified odor control devices would be installed before the issuance of certificates of occupancy for the potentially odor-producing use.

Significance after Mitigation: Less than Significant.

Cumulative Impacts

Impact 4.B-4: Growth from development facilitated by the Specific Plan could potentially be fundamentally inconsistent with the growth assumptions of the *Bay Area 2010 Clean Air Plan*. (Significant before Mitigation)

The 2010 BAAQMD Guidelines recommend that Plan-level impacts be assessed based on consistency with growth assumptions of the current CAP for the purposes of assessing regional impacts and do not identify the need for a quantitative analysis of operational or construction-related criteria pollutant emissions from a Plan in addition to reasonably foreseeable future projects.

According to the BAAQMD, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In addition, according to the BAAQMD *CEQA Air Quality Guidelines,* if a project is determined to be significant based on the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions (BAAQMD, 2010c). Alternatively, if a project is determined to be less-than-significant based on the identified significance thresholds, then the project would not be considered cumulatively considerable and would result in less-than-significant air quality impacts.

As discussed above for Impact 4.B-1, the Specific Plan would result in a rate of increase of VMT that would be more than the rate of increase in population for the proposed Specific Plan and would thus be considered inconsistent with the population and VMT assumptions of the CAP. Thus, this impact would be considered significant and cumulatively considerable. As also noted in Impact 4.B-1, the standards set by the CAP can be difficult for plans and communities to achieve, and are intended as goals to improve air quality rather than to prohibit development.

> **Mitigation:** Implement Mitigation Measure 4.B-1 to ensure consistency with the BAAQMD TCMs to promote clean, fuel efficient and zero emission vehicles.

Significance after Mitigation: Significant and Unavoidable. With implementation of Mitigation Measure 4.B-1, the Specific Plan would be consistent with the BAAQMD TCMs. However, the proposed Specific Plan would remain inconsistent with the population and VMT assumptions of the CAP. As such, the Specific Plan would be considered significant and would result in a cumulatively considerable criteria air pollutant impact.

Impact 4.B-5: Development facilitated by the Specific Plan could potentially generate greenhouse gas (GHG) emissions that may have a significant effect on the environment. (Significant before Mitigation)

Conservative default assumptions of the BAAQMD GHG Model (BGM) were used to determine GHG emissions associated with operation of the land uses to be developed under the Specific Plan, including increased residential, retail, restaurant, office, and hotel land uses. Operational project-related greenhouse gas emissions would be approximately 23,089 metric tons/year of CO_2e (including emissions from vehicle trips, space heating, landscape equipment, and indirect emissions from the use of electricity, solid waste generation, and water and wastewater treatment and conveyance). These emissions are presented in **Table 4.B-5** and were calculated using the GHG Model of the BAAQMD. These calculations also assume standard building techniques and do not reflect sustainable building guidelines of the Specific Plan. However, the City's Specific Plan sustainability measures, High Performance Building Ordinance, and the Citywide Sustainability Plan currently underway would result in reduced GHG emissions, though to what quantitative degree is uncertain at this time. Thus, the values presented below are higher than actual.

TABLE 4.B-5
EMISSIONS OF GHG FROM THE SPECIFIC PLAN[1]

	Emissions (metric tons CO_2e per year)
Source/Sink	**Total CO_2e**
Motor vehicle trips	7,314
Natural gas	2,850
Grid Electricity	6,881
Solid Waste generation	5,521
Water and Wastewater Conveyance and treatment	192
Area Source (landscape maintenance)	331
Total Proposed Project Operational GHG Emissions	**23,089**
Tons per Year per Service Population (residents + employees)	**7.7**
BAAQMD Threshold (Service Population)	**6.6**

[1] Emissions were modeled using the BAAQMD GHG Model for the proposed land uses to be developed under the Specific Plan. Results of the model are included in **Appendix D (AIR-1)**.

Motor vehicle emissions are estimated using vehicle miles travelled calculated by the URBEMIS model that was used in the air quality analysis. The BGM model uses this data to estimate GHG emissions that account for state adopted GHG reduction strategies such as phase-in of Pavley efficiency standards in the vehicle fleet and the low carbon fuel standards. Natural gas emissions are estimated by BGM using land use type and size and climate-specific natural gas demand rates and natural gas emissions factors of the California Climate Action Registry. Electrical GHG emissions are also estimated by BGM using land use type and size but apply a PG&E-specific five-year rolling average electrical GHG emission factor. Solid waste emissions are calculated by

BGM using land use specific waste generation rates of CalRecycle. Water and wastewater treatment and conveyance require electricity for the pumping and treatment processes and these are calculated by BGM based on land use water demand estimates of the San Francisco Public Utilities Commission.

Assuming that the proposed Specific Plan would have a buildout service population of 3,016 (1,637 new jobs and 1,379 residents) as described in Section 4.J, *Population and Housing*, the per capita emission rate would be 7.7 metric tons per service population per year. This would exceed the BAAQMD adopted threshold of 6.6 metric tons per service population per year. Therefore, GHG emissions of development facilitated by the Specific Plan would have a significant impact using the methodology and significance criteria of the BAAQMD, the air quality regulatory agency with jurisdiction over the Planning Area. Notably, the criteria set by the BAAQMD can be difficult for plans and communities to achieve, and are intended to meet AB 32 GHG reduction goals rather than to prohibit development.

> **Mitigation Measure 4.B-5:** The City shall ensure that applicant(s) for individual projects to be developed under the Specific Plan would incorporate Green Building and Development Measures as listed in **Appendix D (AIR-2)**. Each increment of new development under the Specific Plan requiring a discretionary approval from the City (e.g., proposed tentative subdivision map, conditional use permit), would demonstrate that GHG emissions from operation would be reduced by 30 percent from business-as-usual 2020 emissions levels, in order to achieve 1990 levels by 2020.

Significance after Mitigation: Significant and Unavoidable. Implementation of Mitigation Measure 4.B-5 would reduce GHG emissions associated development facilitated by the Specific Plan. However, even with mitigation, emissions related development facilitated by the Specific Plan would remain cumulatively significant because of the large size of the development and related substantial GHG emissions.

Impact 4.B-6: The Specific Plan could potentially conflict with applicable plans, policies or regulations of an agency with jurisdiction over the Specific Plan adopted for the purpose of reducing the emissions of GHGs. (Significant before Mitigation)

The Specific Plan does not pose any explicit conflict with the applicable list of California Air Resources Board GHG reduction strategies (see Table 4.B-2). As demonstrated in Table 4.B-2, many of the measures—such as implementation of increased fuel efficiency for vehicles (the "Pavley" standards), increased efficiency in utility operations, and development of more renewable energy sources—require statewide action by government, industry, or both. Some of the measures are at least partially applicable to development projects, such as increasing energy efficiency in new construction, installation of solar panels on individual building roofs, and a "green building" strategy—although, arguably, some of these measures could require government action, such as strengthening of building codes, to realize meaningful reductions in GHG emissions.

With respect to consistency with AB32 and its Climate Change Scoping Plan, this analysis acknowledges that BAAQMD derived the per-capita efficiency threshold that was applied in Impact 4.B-5 from emission levels required to be met in order to achieve AB 32 goals.[4] Therefore, these quantitative thresholds also may be used to assess whether or not the proposed Specific Plan would conflict with AB32. Because development facilitated by the proposed Specific Plan would emit GHGs that exceed the service population-based efficiency thresholds of the BAAQMD which were derived based on AB 32 attainment goals, implementation of the Specific Plan would also conflict with AB32 and its associated planning efforts.

The City of Napa General Plan, *Envision Napa 2020*, does not include policies explicitly designed to address greenhouse gas emissions and climate change. However, the *Draft Napa Countywide Community Climate Action Plan* includes aggressive reduction measures to achieve 1990 GHG levels by 2020. Based on the substantial reductions required by these measures and the changing regulatory environment pertaining to GHGs, it is not clear whether the GHG reduction strategies described in the *Draft Climate Action Plan* are feasible for the Specific Plan. Thus, the Specific Plan could conflict with the goals identified in the *Draft Napa Countywide Community Climate Action Plan*.

Mitigation: Implement Mitigation Measure 4.B-5 to reduce GHGs.

Significance after Mitigation: Significant and Unavoidable. Implementation of Mitigation Measure 4.B-5 would reduce GHG emissions associated with the Specific Plan. However, even with mitigation, since emissions related to the Specific Plan would be considered cumulatively significant, the Specific Plan would also conflict with the goals of the *Draft Napa Countywide Community Climate Action Plan* and AB 32.

References – Air Quality

Bay Area Air Quality management District (BAAQMD), 2010a. *Ambient Air Quality Standards and Bay Area Attainment Status*, http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm, as of August 23, 2010.

Bay Area Air Quality Management District (BAAQMD), 2010b. *Bay Area 2010 Clean Air Plan*, adopted September 15, 2010. Available at http://www.baaqmd.gov.

Bay Area Air Quality Management District (BAAQMD), 2010c. *CEQA Air Quality Guidelines*, adopted June 2, 2010. Available at http://www.baaqmd.gov.

California Air Resources Board (ARB), 1998. Fact Sheet, "*The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines*." October 1998. Available online at: http://www.arb.ca.gov/toxics/dieseltac/factsht1.pdf.

[4] BAAQMD, *CEQA Guidelines Update Proposed Thresholds of Significance*, May 3, 2010, page 11

California Air Resources Board (ARB), 2002. *Public Hearing to Consider Amendments to the Ambient Air Quality Standards for Particulate Matter and Sulfates*. May 3, 2002.

California Air Resources Board (ARB), 2004. *2004 Revisions to the California State Implementation Plan for Carbon Monoxide*. July 22, 2004.

California Air Resources Board (ARB), 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005.

California Air Resources Board (ARB), 2008. *Climate Change Scoping Plan*. December 11, 2008.

California Air Resources Board (ARB), 2009a. *ARB Fact Sheet: Air Pollution Sources, Effects and Control*, http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm, page last reviewed December 2009.

California Air Resources Board (ARB), 2009b, *California Almanac of Emissions and Air Quality - 2009 Edition*, Table 5-44 and p. 5-44. Available on the internet at: http://www.arb.ca.gov/aqd/almanac/almanac09/pdf/chap509.pdf. Viewed January 6, 2011.

California Air Resources Board (ARB), 2010. *Summaries of Air Quality Data, 2005-2009*; http://www.arb.ca.gov/adam/topfour/topfour1.php

California Energy Commission, 2006. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*, Staff Final Report, December 2006.

City of Napa, 1998. *Envision Napa 2020, City of Napa General Plan*. Adopted December 1, 1998.

Climate Protection Campaign, and MIG, 2009. *Draft Napa Countywide Community Climate Action Plan*. October 2009.

Dockery, D. W., and Pope, C.A., III. 2006. *Health Effects of Fine Particulate Air Pollution: Lines that Connect*. Journal Air & Waste Management Association, pp. 709–742. June.

Governor's Office of Planning and Research (OPR), 2009. *Preliminary Draft CEQA Guideline Amendments for Greenhouse Gas Emissions*, January 8, 2009.

Governor's Office of Planning and Research (OPR), 2010, *Adopted Text of the CEQA Guidelines Amendments*, adopted December 20, 2009, effective March 18, 2010.

4.C Biological Resources

Introduction

This section describes the existing botanical, wildlife, and wetland resources in the Planning Area, identifies the potential impacts of projects constructed under the Specific Plan on these resources, and discusses mitigation measures to minimize or eliminate potentially significant impacts. ESA reviewed several sources of biological information, including applicable biological literature, the Napa General Plan (2006), the California Department of Fish and Game's (CDFG) California Natural Diversity Data Base (CNDDB) (2009), the California Native Plant Society (CNPS) online Electronic Inventory (CNPS, 2009), and the U.S. Fish and Wildlife Service (USFWS) online list of special-status species for the Napa and Cuttings Wharf U.S. Geological Survey (USGS) 7.5-minute quadrangles in the vicinity of the Planning Area (2009).

Setting

Regional Setting

The City of Napa is located in the southern part of Napa Valley, a northwest-trending valley typical of the North Coast Ranges. The Howell Mountains are to the east, and the Mayacamas Mountains are to the west. Habitat immediately north of Napa is agriculture and viticulture, to the northwest is montane hardwood, to the south is annual grassland, and further south are salt marsh wetlands that border San Pablo Bay.

The City of Napa is in the Napa River watershed. The Napa River runs south through the City toward San Pablo Bay and forms the eastern boundary of the Planning Area. Napa Creek, which runs eastward through the Planning Area, is a tributary to Napa River.

Plant Communities and Wildlife Habitats

Plant communities are assemblages of plant species that occur together in the same area, and are defined by species composition and relative abundance. The vegetation/habitat classification system used in this section is based on the California Department of Fish and Game's (CDFG) *List of California Terrestrial Natural Communities Recognized by the CNDDB* (CDFG, 2003). Plant communities generally correlate with wildlife habitat types. Wildlife habitats typically were classified and evaluated using CDFG's *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, 1988).

The Planning Area is primarily urban, with smaller areas of rivers and streams, and riparian forest and woodland vegetation communities. While the terms "urban" and "rivers and streams" are not natural communities per se, they nevertheless provide natural functions and values as wildlife habitat, and are considered in this EIR

Urban

The Planning Area consists primarily of commercial and residential development, with are areas of ornamental vegetation. Urban areas can provide habitat for wildlife species adapted to human habitation, such as striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), European starling (*Sturnus vulgaris*), American robin (*Turdus migratorius*), and mourning dove (*Zenaida macroura*). Larger trees may provide roosting and nesting habitat for raptors and other birds, and buildings and bridges can be suitable substrate for swallows (*Hirundo* spp. and *Tachycineta* spp.). In addition, bat species such as *Myotis* species (*Myotis* spp.), pallid bat (*Antrozous pallidus*), and Townsend's big-eared bat (*Corynorhinus townsendii*) may roost in larger trees, buildings, or under bridges within the City.

Rivers and Streams

The Planning Area is within the Napa River watershed. Napa River is the largest river within the City, and borders the eastern edge of the Planning Area. The Napa River originates near Mount St. Helena, and flows south through the City of Napa and into the San Pablo Bay.

Napa Creek is also present in downtown Napa. Napa Creek is formed by the junction of Redwood and Browns Valley Creek. It is a third order tributary that flows southeasterly through a narrow, meandering channel into the Napa River.

Several fish are present in the Napa River and its tributaries, including striped bass (*Morone saxatilis*), yellowfin goby (*Acanthogobius flavimanus*), Sacramento splittail (*Pogonichthys macrolepidotus*), white catfish (*Ameiurus catus*), and channel catfish (*Ictalurus punctatus*). Central California Coastal steelhead (*Oncorynchus mykiss*) distinct population segment (DPS), a federally Threatened species, and Chinook salmon (*Oncorhynchus tshawytscha*) Central Valley fall/late-fall run evolutionarily significant unit (ESU), a federal Species of Concern, are present in Napa River and Napa Creek. In 2006 the National Marine Fisheries Service (NMFS) designated the Napa River and Napa Creek as critical habitat for the steelhead Central California Coastal DPS (NMFS, 2005).

Wildlife species sometimes found in riverine habitat include river otters (*Lontra canadensis*), great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), belted kingfisher (*Ceryle alcyon*), dark-eyed junco (*Junco hyemalis*), and black phoebe (*Sayornis nigricans*).

Streams within the Planning Area are subject to the U.S. Army Corps of Engineers (Corps) and Regional Water Quality Control Board (RWQCB) jurisdictions under Sections 404 and 401 of the Clean Water Act, respectively, and CDFG jurisdiction under Sections 1600–1616 of the California Fish and Game Code.

Riparian Forest and Woodland

Riparian plant communities are tree- or shrub-dominated communities that occur along streams and rivers. Riparian forests, woodlands, and scrub are often separated from one another depending on the amount and density of tree canopy versus shrub canopy. Riparian forests support a closed or nearly closed canopy of trees with variable understory, while woodlands have an open canopy of trees with an understory that is primarily grassy or herbaceous. Shrubs rather

than trees dominate riparian scrub habitat. The composition and density of riparian vegetation is very much dependent upon the duration of flowing or near-surface water, the amplitude and periodicity of flow (brief, high-velocity flows versus more sustained flows), and the texture of the substrate (cobble, gravel, sand, silt, clay). Different reaches of a stream may support different types of riparian vegetation.

While much of the riparian habitat along Napa Creek and Napa River within the Planning Area has been replaced with rip-rap and concrete, degraded riparian habitat still exists. Most remaining riparian habitat is scrub/shrub and herbaceous vegetation, such as wild grape (*Vitis californica*), wild rose (*Rosa californica*), California blackberry (*Rubus laciniatus*), and poison oak (*Toxicodendron diversilobum*). Scattered willows (*Salix* spp.) are also present.

Birds that generally forage for insects in riparian areas include Bewick's wren (*Thryomanes bewickii*), black phoebe, and black-headed grosbeak (*Pheuticus melanocephalus*). Bark-insect foraging birds also occur in this habitat and include acorn woodpecker (*Melanerpes formicivorus*), Nuttall's woodpecker (*Picoides nuttalli*), and white-breasted nuthatch (*Sitta carolinensis*). Other bird species expected in riparian habitats include dark-eyed junco, bushtit (*Psaltriparus minimus*), oak titmouse (*Baeolophus inornatus*), and brown creeper (*Certhia americana*), and piscivorous birds such as the belted kingfisher.

Riparian communities also provide habitat for reptiles and amphibians including the western toad (*Bufo boreas*), California newt (*Taricha torosa*), Pacific tree frog (*Hyla regilla*), and Pacific slender salamander (*Batrachoseps attenuatus*). Mammals such as the western harvest mouse (*Reithrodontomys megalotis*), deer mouse (*Peromyscus maniculatus*), western gray squirrel (*Sciurius griseus*), Virginia opossum (*Didelphis marsupialis*), and raccoon (*Procyon lotor*), utilize these habits for nesting and foraging. Small rodents attract raptors such as red-shouldered hawk (*Buteo lineatus*) and red-tailed hawk (*Buteo jamaicensis*). Black-tailed deer (*Odocoileus hemionus*), raccoons, striped skunk, and bobcat (*Felis rufus*) may use riparian habitat as a wildlife movement corridor. Other special-status wildlife that could be present in the riparian woodlands include raptors such as Cooper's hawk (*Accipiter cooperii*) and sharp-shinned hawk (*A. striatus*).

Riparian natural communities are protected under §1600–1616 of the California Fish and Game Code.

Wildlife Movement Corridors

Wildlife movement corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or by areas of human disturbance or urban development. Topography and other natural factors in combination with urbanization can fragment or separate large open-space areas. The fragmentation of natural habitat creates isolated "islands" of vegetation that may not provide sufficient area to accommodate sustainable populations of animals or plants, and can adversely impact genetic and species diversity. Movement corridors mitigate the effects of this fragmentation by allowing animals to move between remaining habitats, which in turn allows depleted populations to be replenished and promotes genetic exchange between separate populations.

While the Planning Area is primarily developed, Napa River and Napa Creek provide wildlife movement corridors for fish, waterfowl and other birds, bats, and larger mammals such as raccoons and striped skunks.

Special-Status Species

Several species known to occur in the project vicinity are accorded "special-status" because of their recognized rarity or vulnerability to various causes of habitat loss or population decline. Some of these receive specific protection defined in federal or state endangered species legislation (see *Regulatory Framework* below). Others have been designated as "sensitive" based on adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. The latter category is recognized by Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines. This CEQA Guidelines section provides a definition of rare, endangered or threatened species that is broader than that included in federal and state endangered species regulations.[1] These species are referred to collectively as "special-status species" in this document, following a convention that has developed in practice but has no official sanction. The various categories encompassed by the term, and the legal status of each, are discussed in the Regulatory Framework component of this section below. For purposes of this EIR, special-status species include:

- Plant and animal species designated as rare, threatened or endangered under the federal or state endangered species acts.
- Species that are candidates for listing under either federal or state law.
- Species designated by the USFWS as species of concern or species of local concern, or by CDFG as Species of Special Concern.
- Species protected by the federal Migratory Bird Treaty Act (16 U.S.C. 703-711).
- Bald and golden eagles protected by the federal Bald Eagle Protection Act (16 U.S.C. 668).
- Species such as candidate species and CNPS List 1 and 2 species that may be considered rare or endangered pursuant to Section 15380(b) of the CEQA Guidelines.

The 2006 *Napa General Plan* reports 19 special-status plant and wildlife species in the Napa area. **Table 4.C-1** lists 13 special-status plant species and 36 special-status animal species reported to occur in the vicinity of the project area based on data in the CNDDB (CDFG, 2009), CNPS Electronic Inventory (2009), special-status species information from the USFWS (2009), and biological literature of the region. Special-status plants and animals are evaluated in this document based on a plausible likelihood of habitat loss or project-related disturbance occurring during the implementation of the proposed Specific Plan.

[1] For example, there is a general agreement among biologists, ecologists and other resource specialists, that vascular plants listed as List 1 or 2 by the CNPS meet the broader definition in CEQA Guidelines Section 15380(b).

TABLE 4.C-1
FOCUSED LIST OF SPECIAL-STATUS SPECIES CONSIDERED FOR THE PLANNING AREA

Common Name Scientific Name	Listing Status USFWS/ CDFG/CNPS	General Habitat Requirements	Potential to Occur in Planning Area
LISTED SPECIES OR SPECIES PROPOSED FOR LISTING			
Invertebrates			
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/--	Small, clear-water sandstone depression pools and grassy swales. Endemic to the grasslands of the Central Valley in rain-filled pools, inhabit small, clear-water sandstone-depression pools and grassy swales, earth slump, or basalt-flow depression pools.	**Not present.** Suitable habitat not found in Planning Area.
California freshwater shrimp *Syncaris pacifica*	FE/CE	Found in low-elevation, low gradient perennial freshwater streams in Sonoma, Marin and Napa Counties where banks are structurally diverse with undercut banks, exposed roots, or overhanging woody debris or vegetation.	**Not present.** Suitable habitat not found in Planning Area.
Fish			
Delta smelt *Hypomesus transpacificus*	FT/CT	Confined to the upper Sacramento-San Joaquin River estuary in shallow waters.	**Not present.** Suitable habitat not found on site.
Steelhead, Central California Coast DPS *Oncorhynchus mykiss irideus*	FT/--	Drainages of San Francisco and San Pablo bays, and coastal rivers. Present in Napa River and Napa Creek.	**Present.** Occurs in Napa River and Napa Creek.
Chinook salmon, Central Valley spring-run ESU *Oncorhynchus tshawtyscha*	FT/--	Found in the Sacramento River and its tributaries. Enters the Sacramento River from late March through September.	**Not Present.** This ESU does not occur in Planning Area.
Chinook salmon, Sacramento River winter-run ESU *Oncorhynchus tshawtyscha*	FE/--	Found in the Sacramento River and its tributaries. Spawn in the upper mainstem of Sacramento River from mid-April through August.	**Not Present.** This ESU does not occur in Planning Area.
Amphibians			
California red-legged frog *Rana draytonii*	FT/CSC	Breeds in permanent or seasonal pools, ponds, and slow-moving streams, with emergent vegetation for escape cover and egg attachment. Disperses near breeding habitat. Aestivates/hibernates in root channels, burrows, and the bottom of ponds.	**High.** Known to occur in vicinity of Planning Area.
Birds			
Swainson's hawk *Buteo swainsoni*	--/CT	Nests in oaks or cottonwoods in or near riparian habitat. Forages in grasslands and agricultural fields.	**Low.** Suitable habitat not found in Planning Area.
Western snowy plover *Charadrius alexandrinus nivosus*	FT/CSC	Nests and forages on sandy beaches on marine and estuarine shores - requires sandy, gravely, or friable soils for nesting.	**Not present.** Suitable habitat not found in Planning Area.
California black rail *Laterallus jamaicensis coturniculus*	--/CT, CFP	Salt marshes along large bays, also freshwater marshes. This species is known to occur in the salt marsh wetlands south of Napa, surrounding San Pablo Bay (CDFG, 2009).	**Not present.** Suitable habitat not found in Planning Area.

TABLE 4.C-1 (Continued)
FOCUSED LIST OF SPECIAL-STATUS SPECIES CONSIDERED FOR THE PLANNING AREA

Common Name Scientific Name	Listing Status USFWS/ CDFG/CNPS	General Habitat Requirements	Potential to Occur in Planning Area
LISTED SPECIES OR SPECIES PROPOSED FOR LISTING (cont.)			
Birds (cont.)			
California clapper rail *Rallus longirostris obsoletus*	FE/CE,CFP	Salt-water and brackish marshes with tidal sloughs. This species is known to occur in the salt marsh wetlands south of Napa, surrounding San Pablo Bay (CDFG, 2009).	**Not present.** Suitable habitat not found in Planning Area.
Northern spotted owl *Strix occidentalis caurina*	FT/CSC	Dense, multi-layered canopy cover, including old-growth conifer, partly logged redwood forest, closed canopy oak forests. There are several recent records of this species less than five miles northwest of the Planning Area (CDFG, 2009).	**Low.** Suitable habitat not found in Planning Area.
Mammals			
Salt-marsh harvest mouse *Reithrodontomys raviventris*	FE/CE	Saline emergent marsh with dense pickleweed. This species is known to occur in the salt marsh wetlands south of Napa, surrounding San Pablo Bay (CDFG, 2009).	**Not present.** Suitable habitat not found in Planning Area.
Plants			
Soft bird's-beak *Cordylanthus mollis ssp. mollis*	FE/Rare/1B.2	Coastal salt marsh. Known from fewer than fifteen occurrences.	**Not present.** Suitable habitat not found in Planning Area.
Two-fork clover *Trifolium amoenum*	FE/--/1B.1	Open sites and swales in grassland and coastal bluff scrub; sometimes on serpentine soils.	**Low.** Occurs in Planning Area vicinity, but limited habitat is present for this species in the Planning Area.
OTHER SPECIAL-STATUS SPECIES			
Amphibians			
Foothill yellow-legged frog *Rana boylii*	FSC/CSC	Fast-moving streams and rivers with rocky bottoms, usually absent of predatory fish.	**Medium.** Suitable habitat occurs in Planning Area.
Reptiles			
Northwestern pond turtle *Actinemys marmorata marmorata*	FSC/CSC	Lakes, ponds, reservoirs, and slow-moving streams and rivers, primarily in foothills and lowlands. There are recent records for this species along Napa River (CDFG, 2009).	**High.** Known to occur in Napa River.
Birds			
Cooper's hawk *Accipiter cooperii*	--/WL	Nests in riparian growths of deciduous trees and live oak woodlands.	**Medium.** May nest or forage in Planning Area.
Sharp-shinned hawk *Accipiter striatus*	--/WL	Heavily wooded areas along streams or near springs; forages in seasonal wetlands.	**Medium.** May nest or forage in Planning Area.
Tricolored blackbird *Agelaius tricolor*	--/CSC	Nests in riparian thickets and emergent vegetation. Forages in grassland and cropland.	**Low.** May use riparian habitat in Planning Area, but unlikely.
Golden eagle *Aquila chrysaetos*	--/CSC, CFP	Nests in canyons and large trees in open habitats.	**Low.** Transient individuals may forage in Planning Area.

TABLE 4.C-1 (Continued)
FOCUSED LIST OF SPECIAL-STATUS SPECIES CONSIDERED FOR THE PLANNING AREA

Common Name Scientific Name	Listing Status USFWS/ CDFG/CNPS	General Habitat Requirements	Potential to Occur in Planning Area
OTHER SPECIAL-STATUS SPECIES (cont.)			
Birds (cont.)			
Burrowing owl *Athene cunicularia*	--/CSC	Nests and forages in low-growing grasslands that support burrowing mammals.	**Not present.** Suitable habitat not found in Planning Area.
Ferruginous hawk *Buteo regalis*	FSC/CSC	Dry open country with a variety of habitats.	**Low.** Transient individuals may forage in Planning Area.
Northern harrier *Circus cyaneus*	--/CSC	Meadows, marshes, grasslands, open fields; forages in seasonal wetlands.	**Low.** Transient individuals may forage in Planning Area.
White-tailed kite *Elanus leucurus*	--/CFP	Generally nests in trees with dense canopies; hunts in open grasslands.	**Low.** Transient individuals may forage in Planning Area.
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	--/CSC	Inhabits tidal salt and brackish marshes in winter, but breeds in freshwater to brackish marshes and riparian woodlands during spring to early summer.	**Medium.** Known to occur in vicinity of Planning Are.
Caspian tern *Hydroprogne caspia*	--/* (nesting)	Nests in dense colonies on sandy estuarine shores, on levees in salt ponds, and on islands in alkali and freshwater lakes. Colonies are at south San Francisco bay, San Diego Bay, several lakes in Modoc and Lassen counties, and small colonies on Humboldt Bay, San Pablo Bay, and Elkhorn Slough.	**Not present.** Suitable habitat not found in Planning Area.
San Pablo song sparrow *Melospiza melodia samuelis*	--/CSC	Emergent wetlands in the San Francisco Bay area.	**Not present.** Suitable habitat not found in Planning Area.
Fish			
Chinook salmon, Central Valley fall/late-fall run ESU *Oncorhynchus tshawytscha*	--/CSC	Found in Sacramento and San Joaquin River Basins and their tributaries, east of Carquinez Strait, California This ESU is present in Napa River and Napa Creek, along the eastern boundary of the Planning Area (Napa County Resource Conservation District, 2007).	**Present.** Known to occur in Napa River.
Sacramento splittail *Pogonichthys macrolepidotus*	--/CSC	Slow moving river sections and dead-end sloughs with flooded vegetation for spawning and foraging for young. Present in the tidally influenced reaches of Napa River (Leidy, 2007).	**High.** Known to occur in Planning Area.
Mammals			
Pallid bat *Antrozous pallidus*	--/CSC	Day roosts are mainly in caves, crevices and mines; also found in buildings and under bark. Forages in open lowland areas, often in oak woodlands. There are several records of this species reported within and surrounding the Planning Area (CDFG, 2009).	**Medium.** May roost or forage in Planning Area.

TABLE 4.C-1 (Continued)
FOCUSED LIST OF SPECIAL-STATUS SPECIES CONSIDERED FOR THE PLANNING AREA

Common Name Scientific Name	Listing Status USFWS/ CDFG/CNPS	General Habitat Requirements	Potential to Occur in Planning Area
OTHER SPECIAL-STATUS SPECIES (cont.)			
Mammals (cont.)			
Townsend's big-eared bat *Corynorhinus townsendii townsendii*	FSC/CSC	Forages in a variety of habitats; prefers mesic sites. Roosts in caves, mines, tunnels, buildings, and hollow trees.	**Medium.** May roost or forage in Planning Area.
Western red bat *Lasiurus blossevillii*	--/CSC	Roosts in tree foliage in edge habitat adjacent to streams or open fields, in orchards, and sometimes in urban areas.	**Medium.** May roost or forage in Planning Area.
Hoary bat *Lasiurus cinereus*	--/*	Roosts primarily alone in foliage of both coniferous and deciduous trees, near the ends of branches.	**Low.** Planning Area lacks suitable habitat.
Long-eared myotis *Myotis evotis*	FSC/--	Occurs in semiarid shrublands, sage, chaparral, agricultural areas, and most frequently in coniferous forests. Roost under exfoliating tree bark, hollow trees, caves, mines, cliff crevices, sink holes, rocky outcrops.	**Medium.** May roost or forage in Planning Area.
Fringed myotis *Myotis thysanodes*	FSC/--	Inhabits a variety of habitats including pinyon-juniper woodland, valley-foothill hardwood, hardwood-conifer forests, and desert scrub.	**Medium.** May roost or forage in Planning Area.
Long-legged myotis *Myotis volans*	FSC/--	Inhabits forests and woodland habitats, primarily oak and juniper woodlands.	**Medium.** May roost or forage in Planning Area.
Yuma myotis *Myotis yumanensis*	FSC/--	Occurs in riparian, arid scrublands and deserts, and forests. Roosts in bridges, buildings, cliff crevices, caves, mines, and trees. Forages over open water.	**Medium.** May roost or forage in Planning Area.
Mountain lion *Puma concolor*	--/*	Found in nearly all habitats, except croplands in the Central Valley. Most abundant in riparian areas, and brushy stages of most habitats.	**Low.** Planning Area lacks suitable habitat.
American badger *Taxidea taxus*	--/CSC	Friable soils in oak savannahs and grasslands.	**Low.** Planning Area lacks suitable habitat.
Plants			
Alkali milk-vetch *Astragalus tener var. tener*	--/--/1B.2	Playas, valley and foothill grassland, and vernal pools.	**Not present.** Suitable habitat not found in Planning Area.
San Joaquin spearscale *Atriplex joaquiniana*	--/--/1B.2	Chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands.	**Low.** Known to occur south of the Planning Area, but suitable habitat not found on site.
Holly-leaved ceanothus *Ceanothus purpureus*	--/--/1B.2	Chaparral, cismontane woodland/volcanic, rocky. There are several records of this species in mixed chaparral less than five miles east of the Planning Area (CDFG, 2009).	**Not present.** Suitable habitat not found in Planning Area.
Dwarf downingia *Downingia pusilla*	--/--/2.2	Mesic grasslands, vernal pools.	**Not present.** Suitable habitat not found in Planning Area.

TABLE 4.C-1 (Continued)
FOCUSED LIST OF SPECIAL-STATUS SPECIES CONSIDERED FOR THE PLANNING AREA

Common Name Scientific Name	Listing Status USFWS/ CDFG/CNPS	General Habitat Requirements	Potential to Occur in Planning Area
OTHER SPECIAL-STATUS SPECIES (cont.)			
Plants (cont.)			
Greene's narrow-leaved daisy *Erigeron greenei*	--/--/1B.2	Serpentinite or volcanic chaparral.	**Not present.** Suitable habitat not found in Planning Area.
Northern California black walnut *Juglans hindsii*	--/--/1B.1	Riparian forest and woodland. There is one record of this species from Napa, but it is extirpated (CDFG, 2009).	**Low.** Historical occurrences occur in the Planning Area, but it is thought to be extirpated.
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	--/--/1B.2	Freshwater and brackish marshes and swamps.	**Low.** Known to occur south of the Planning Area, but suitable habitat not found in Planning Area.
Legenere *Legenere limosa*	--/--/1B.1	Vernal pools.	**Not present.** Suitable habitat not found in Planning Area.
Jepson's leptosiphon = Jepson's linanthus *Leptosiphon jepsonii= Linanthus jepsonii*	FSC/--/ 1B.2	Openings in chaparral, cismontane woodland (usually volcanic or periphery of serpentinite).	**Not present.** Suitable habitat not found in Planning Area.
Mason's lilaeopsis *Lilaeopsis masonii*	--/Rare/1B.1	Marshes and swamps and riparian scrub. Current records of this species along Napa River (CDFG, 2009).	**High.** Known to occur in Planning Area.
Suisun marsh aster *Symphyotrichum lentum*	--/--/1B.2	Brackish and freshwater marshes and swamps. Often seen along sloughs with *Phragmites*, *Scirpus*, *Rubus*, and *Typha*.	**Low.** Known to occur south of but not within the Planning Area.
Saline clover *Trifolium depauperatum var. hydrophilum*	--/--/1B.2	Marshes and swamps, valley and foothill grassland, vernal pools.	**Low.** Known to occur south of the Planning Area, but suitable habitat not found in the Planning Area.

STATUS CODES:

Federal Categories (U.S. Fish and Wildlife Service)

FE = Listed as endangered by the Federal Government
FT = Listed as threatened by the Federal Government
FPE = Proposed for Listing as endangered
FPT = Proposed for Listing as threatened
FC = Candidate for Federal Listing
SC = Federal Species of Concern
FSC = former Federal Species of Concern. Species designated as such in this EIR were listed by the Sacramento FWS office until 2006, when they stopped maintaining their list for all species except for fish species. These species are still considered to be at-risk species by other federal and state agencies, as well as various organizations with recognized expertise such as the Audubon Society.

State Categories (California Department of Fish and Game)

CE = Listed as endangered by the State of California
CT = Listed as threatened by the State of California
CR = Listed as Rare by the State of California
CFP = California fully protected species

California Native Plant Society (CNPS)

List 1A = Plants presumed extinct in California
List 1B = Plants rare, threatened, or endangered plants in California and elsewhere
List 2 = Plants rare, threatened, or endangered in California but common elsewhere.
List 3 = Plants about which more information is needed – a review list
List 4 = Plants of limited distribution – a watch list

0.1= Seriously endangered in California
0.2= Fairly endangered in California
0.3= Not very endangered in California

* = Special Animals as defined by CDFG
CSC = California Species of Special Concern
WL = Watch List

SOURCE: CDFG, 2009; CNPS, 2009; USFWS, 2009

Special-Status Plant Species

In general the Planning Area has low potential for special-status species because it either never had suitable habitat for these species, or it lost suitable habitat when downtown Napa was developed. In fact, most records of special-status species in the vicinity of Napa are historical, and those special-status plants still extant are present in undeveloped locations. Of the 13 special-status plant species that have records in the vicinity of Napa (see Table 4), only one, Mason's lilaeopsis (*Lilaeopsis masonii*), has the potential to occur within the boundaries of the Specific Plan. Mason's lilaeopsis is found along the eastern boundary of the Planning Area, along the Napa River; this species is described below. **Figure 4.C-1** shows records of CNDDB special-status plants within the Planning Area and a two-mile radius surrounding it (CDFG, 2009).

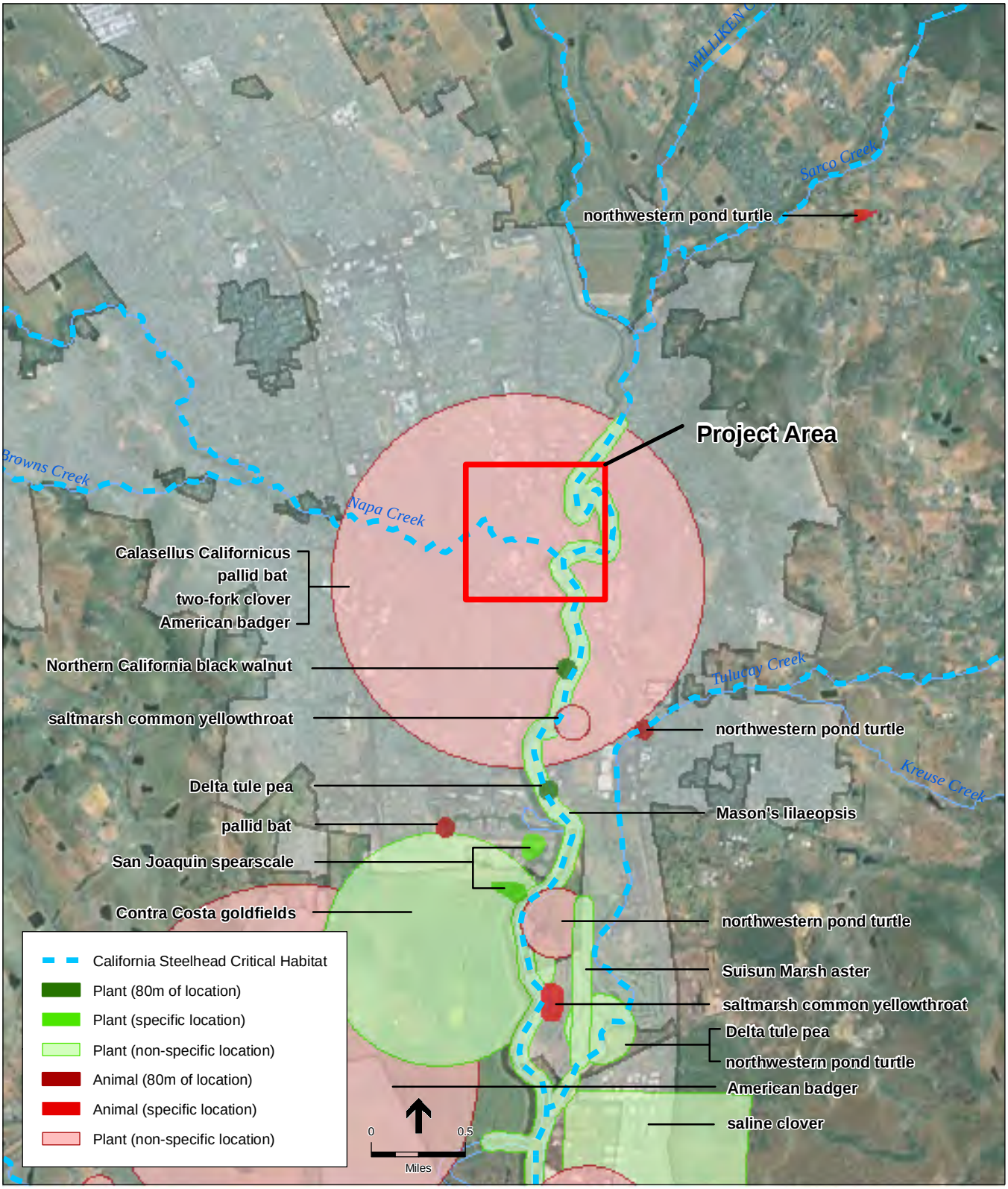
Mason's lilaeopsis. This species is a California Rare Plant species, and a CNPS 1B.1 plant (see Table 4 for a list of CNPS definitions). It is found in marshes and swamps and riparian scrub, and is present in silt-filled cracks of old rotting dock pilings along the Napa River, on the eastern boundary of the Planning Area (CDFG, 2009). Proposed Specific Plan activities are not expected to impact this species.

Special-Status Wildlife Species

The Planning Area is predominantly developed and has only small patches of natural communities remaining, and thus provides little habitat for the 36 special-status animals considered for this EIR. Nevertheless, several special-status aquatic species may be present in Napa Creek and Napa River, including California red-legged frog (*Rana draytonii*), foothill yellow-legged frog (*Rana boylii*), northwestern pond turtle (*Actinemys marmorata marmorata*), steelhead, Chinook salmon, and Sacramento splittail (*Pogonichthys macrolepidotus*). In addition, special-status breeding birds and roosting bats may nest/roost in or near the Planning Area. CNDDB records of special-status animals within the Planning Area and the surrounding two-mile vicinity are shown in Figure 4.C-1 (CDFG, 2009).

California red-legged frog. The California red-legged frog is a federally Threatened species and a California Species of Special Concern. This species breeds in sunlit ponds, slow sections of streams, and permanent or seasonal water, usually with densely vegetated shorelines and often with floating vegetation. Water is typically warm (18-22°C). The hibernacula and aestivation habitat requirements for the species are not well known, but are presumed to be root channels, burrows, and pond bottoms. Dispersal habitat near breeding areas includes any areas where frogs can disperse without being harmed. There are no records that indicate California red-legged frog occurring within five miles of the Planning Area (CDFG, 2009). However, the Planning Area is within the range of this species, and they could occur in ponds and creeks within the Planning Area.

Chinook salmon. The Chinook salmon Central Valley fall/late-fall evolutionary significant unit (ESU) is a federal Species of Concern present in both the Napa River upstream through Napa to St. Helena, and in Napa Creek. The Napa County Resource Conservation District estimates 400 to 600 Chinook in the main stem of the Napa River and several tributary streams (Napa County Resource Conservation District, 2007). The best spawning and rearing conditions in Napa Creek



SOURCE:CDFG 2009; City of Napa City, 2009

Napa Downtown Specific Plan. 208649

Figure 4.C-1

CNDDB Special-Status Species

are upstream of the reach that runs through the City; this reach thus acts primarily as a migration corridor for salmon and steelhead moving to the upstream reaches. Napa Creek may represent an important spawning stream for Chinook salmon since it represents a relatively short migration, is not dammed, and maintains flow early in the year during the salmon spawning period (Napa County Resource Conservation District, 2006).

Foothill yellow-legged frog. The foothill yellow-legged frog is a former federal species of concern and is currently a California Species of Special Concern. This species inhabits rocky streams and is rarely found far from permanent water. Although there are no CNDDB records for this species near the Planning Area (CDFG, 2009), they could inhabit parts of Napa Creek and Napa River.

Northwestern pond turtle. The northwestern pond turtle is a California Species of Special Concern, which occurs in a variety of permanent and intermittent aquatic habitats such as ponds, marshes, rivers, streams, and ephemeral pools. Pond turtles require suitable basking habitat and haul-out sites, such as emergent rocks or floating logs, which they use to thermoregulate their temperature throughout the day (Stebbins, 1985). Pond turtles also require upland egg laying sites near appropriate aquatic habitat, typically within 650 feet of aquatic habitat. There are recent CNDDB records for this species along the Napa River (CDFG, 2009), and they could be present or disperse into the Planning Area.

Sacramento splittail. The Sacramento splittail is a California Species of Special Concern, found in slow-moving river sections and dead-end sloughs with flooded vegetation for spawning and foraging for young. This species is present in the tidally influenced reaches of Napa River (Leidy, 2007), and may reach as far north in Napa River as downtown Napa.

Steelhead trout. Central California Coast steelhead distinct population segments (DPS) is one of 15 steelhead DPS, and a federally Threatened species. Steelhead populations in most tributaries to San Francisco and San Pablo Bays have been extirpated (McEwan and Jackson, 1996), but Central California Coast steelhead spawn in the Napa River system, including Napa River and Napa Creek, as well as in other streams entering San Pablo Bay, Suisun Bay, and San Francisco Bay (Napa County Resource Conservation District, 2006).

Special-status birds. Raptors such as the Cooper's hawk, sharp-shinned hawk, and red-tail hawk, and other native bird species such as the saltmarsh common yellowthroat, cliff swallow (*Hirundo pyrrhonota*), song sparrow (*Melospiza melodia*), and western scrub jay (*Aphelocoma coerulescens*) may nest in trees and bushes, under bridges, or on roofs in the Planning Area, and forage throughout. All native nongame birds are protected under the California Fish and Game Code Section 3503 and 3503.5.

Special-status bats. Several bat species may forage in the Planning Area and roost in buildings, under bridges, or in trees in the area, including the pallid bat, Townsend's big-eared bat, western red bat (*Lasiurus blossevillii*), long-eared myotis (*Myotis evotis*), long-legged myotis (*Myotis volans*), fringed myotis (*Myotis thysanodes*), and Yuma myotis (*Myotis yumanensis*). All of these species are former federal species of concern and/or California Species of Special Concern.

Critical Habitat for Listed Fish and Wildlife Species

National Marine Fisheries Service (NMFS) designated critical habitat for central California coast steelhead DPS on September 2, 2005 and became effective on January 2, 2006. The Napa River is included in this critical habitat designation and is defined as the Napa River Hydrologic Subarea, which includes the Napa River and most of the tributaries, including Napa Creek. The primary constituents of critical habitat include fresh water spawning sites with water quality and quantity and substrate that support spawning, incubation and larval development.

Protected Trees

The City of Napa Municipal Code protects heritage trees, protected native trees, and street trees (see *Regulatory Framework*, below).

Regulatory Setting

This subsection briefly describes federal, state, and local regulations, permits, and policies pertaining to biological resources and wetlands as they apply to the Planning Area.

Special-Status Species

Federal Endangered Species Act

The USFWS, which has jurisdiction over plants, wildlife, and most freshwater fish, and the National Marine Fisheries Service (NMFS), which has jurisdiction over anadromous fish, marine fish, and mammals, oversee implementation of the Federal Endangered Species Act (FESA). Section 7 of the FESA mandates that all federal agencies consult with the USFWS and NMFS to ensure that federal agency actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. A federal agency is required to consult with USFWS and NMFS if it determines a "may affect" situation will occur in association with the proposed project. The FESA prohibits the "take"2 of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery.

Under Section 9 of the FESA, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the removal, possession, damage, or destruction of any endangered plant from federal land. Section 9 also prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in non-federal areas in knowing violation of any state law or in the course of criminal trespass. Candidate species and species that are proposed or under petition for listing receive no protection under Section 9 of the FESA.

[2] "Take," as defined in Section 9 of the FESA, is broadly defined to include intentional or accidental "harassment" or "harm" to wildlife. "Harass" is further defined by the U.S. Fish and Wildlife Service as an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns that include, but are not limited to, breeding, feeding, and sheltering. "Harm" is defined as an act that actually kills or injures wildlife. This may include significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

Section 10 of the FESA requires the issuance of an "incidental take" permit before any public or private action may be taken that would potentially harm, harass, injure, kill, capture, collect, or otherwise hurt (i.e., take) any individual of an endangered or threatened species. To offset the take of individuals that may occur incidental to implementation of the project, the permit requires preparation and implementation of a habitat conservation plan that provides for the overall preservation of the affected species through specific mitigation measures.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (16 USC, Section 703, Supplement I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and egg.

Federal Essential Fish Habitat

The Sustainable Fisheries Act of 1996 (Public Law 104-297), amended the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to establish new requirements for Essential Fish Habitat (EFH) descriptions in federal Fisheries Management Plans (FMPs) and to require federal agencies to consult with the National Marine Fisheries Service (NMFS) on activities that may adversely affect EFH. The Magnuson-Stevens Act requires all fishery management councils to amend their FMPs to describe and identify EFH for each managed fishery. The act also requires consultation for all federal agency actions that may adversely affect EFH (i.e., direct versus indirect effects); it does not distinguish between actions in EFH and actions outside EFH. Any reasonable attempt to encourage the conservation of EFH must take into account actions that occur outside of EFH, such as upstream and upslope activities that may have an adverse effect on EFH. Therefore, EFH consultation with NMFS is required by federal agencies undertaking, permitting, or funding activities that may adversely affect EFH, regardless of the activity's location. Under section 305(b)(4) of the Magnuson-Stevens Act, NMFS is required to provide EFH conservation and enhancement recommendations to federal and state agencies for actions that adversely affect EFH. However, state agencies and private parties are not required to consult with NMFS unless state or private actions require a federal permit or receive federal funding. Although the concept of EFH is similar to that of critical habitat under the FESA, measures recommended to protect EFH by NMFS are advisory, not proscriptive.

California Endangered Species Act

Under the California Endangered Species Act (CESA), CDFG has the responsibility for maintaining a list of threatened and endangered species (California Fish and Game Code Section 2070). CDFG also maintains a list of "candidate species," which are species formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. In addition, CDFG maintains lists of "species of special concern," which serve as "watch lists." Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened

species could be present on the project site and determine whether the proposed project could have a potentially significant impact on such species. In addition, CDFG encourages informal consultation on any proposed project that may affect a candidate species.

California Environmental Quality Act

The intent of the California Environmental Quality Act (CEQA) is to maintain "high-quality ecological systems and the general welfare of the people of the state." It is the policy of the state to "prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history." CEQA forbids agencies from approving projects with significant adverse impacts when feasible alternatives or feasible mitigation measures can substantially reduce such impacts.[3]

CEQA requires consultation with CDFG on any project an agency initiates that is not statutorily or categorically exempt from CEQA. The CEQA Guidelines (Section 15065a) indicate that impacts on state- and federal-listed rare, threatened, or endangered plants or animals are significant.

Although rare, threatened, and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(b) provides that a species not listed on federal or state protected species lists may be considered rare threatened, or endangered if the species can be shown to meet certain criteria (e.g., it can be shown that the species' survival in the wild is in jeopardy or the species is at risk of becoming endangered in the near future). These criteria have been modeled after the definition in the FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in the CEQA Guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a "species of concern" that has not yet been listed by either the USFWS or CDFG. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted. Under CEQA Guidelines Section 15380, impacts on species that meet the specified criteria but are not officially listed may also be considered significant by the lead agency (for an EIR), depending on the applicability of other laws (e.g., Migratory Bird Treaty Act) and the discretion of the agency. For example, CDFG interprets Lists 1A, 1B, and 2 of the California Native Plant Society's *Inventory of Rare and Endangered Vascular Plants of California* to consist of plants that, in a majority of cases, would qualify for listing as rare, threatened, or endangered. However, the determination of whether an impact is significant is a function of the lead agency, absent the protection of other laws. Projects subject to CEQA review must specifically address potential impacts on listed species and provide mitigation measures if the impact is significant.

[3] CEQA also provides that a project might be approved in spite of residual, unmitigated significant impacts, by adoption of a statement of overriding social and economic considerations in situations where mitigations or alternatives are deemed infeasible.

California Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed CDFG to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. The California Endangered Species Act expanded upon the original NPPA and enhanced legal protection for plants. The CESA established threatened and endangered species categories, and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, there are three listing categories for plants in California: rare, threatened, and endangered.

California Fish and Game Code

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.3 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs.

The California Fish and Game Code (Sections 3511-birds, 4700-mammals, 5050-reptiles and amphibians, and 5515-fish) also allows the designation of a species as Fully Protected. This designation provides a greater level of protection than is afforded by the California Endangered Species Act, since it means the designated species cannot be taken at any time.

Sensitive Natural Communities

Sensitive natural communities are identified as such by CDFG's Natural Heritage Division and include those that are naturally rare and those whose extent has been greatly diminished through changes in land use. The California Natural Diversity Database (CNDDB) tracks 135 such natural communities in the same way that it tracks occurrences of special-status species: information is maintained on each site's location, extent, habitat quality, level of disturbance, and current protection measures. CDFG is mandated to seek the long-term perpetuation of the areas in which these communities occur. While there is no statewide law that requires protection of all special-status natural communities, CEQA requires consideration of a project's potential impacts on biological resources of statewide or regional significance.

Jurisdictional Waters (Including Wetlands)

Definitions

Waters of the United States

The term "waters of the United States," as defined in the Code of Federal Regulations (33 C.F.R. § 328.3[a]; 40 C.F.R. § 230.3[s]), refers to:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. All interstate waters including interstate wetlands;

3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:

    - which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    - from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    - which are used or could be used for industrial purposes by industries in interstate commerce.

4. All impoundments of waters otherwise defined as waters of the United States under the definition;

5. Tributaries of waters identified in paragraphs (1) through (4);

6. Territorial seas; and

7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6).

8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA (33 CFR 328.3[a][8]).

Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. The importance of wetlands has increased due to their value as recharge areas and filters for water supplies and to their widespread filling and destruction to enable urban and agricultural development. Examples of wetlands may include freshwater marsh, seasonal wetlands, and vernal pool complexes that are adjacent to waters of the U.S. In a jurisdictional sense, there are two commonly used wetland definitions, one adopted by the U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (Corps) and a separate definition, originally developed by U.S. Fish and Wildlife Service (USFWS), which has been adopted by agencies in the State of California that have regulatory authority over wetlands. Both definitions are presented below.

Federal Wetland Definition

Under federal law, wetlands are a subset of "waters of the United States" and receive protection under Section 404 of the Clean Water Act (CWA). Wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration that are sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically

adapted for life in saturated soil conditions. Wetland determination under the federal wetland definition adopted by the Corps requires the presence of three factors: (1) wetland hydrology; (2) plants adapted to wet conditions; and (3) soils that are routinely wet or flooded [33 C.F.R. § 328.3(b)]. In January 2001, the Supreme Court of the United States ruled that certain isolated wetlands do not fall under the jurisdiction of the CWA (*Solid Waste Agency of Northwestern Cook County v. United States Army Corps of Engineers* et al.).

California Wetland Definition

The California Department of Fish and Game (CDFG) and the California Coastal Commission (CCC) have adopted the USFWS Cowardin (1979) definition of wetlands. While the federal definition of wetlands requires three wetland identification parameters to be met, the Cowardin definition can be satisfied under some circumstances with the presence of only one parameter. Thus, identification of wetlands by State agencies may include areas that are permanently or periodically inundated or saturated and without wetland vegetation or soils, such as rocky shores, or areas that presume wetland hydrology based on the presence of at least one of the following: a) a seasonal or perennial dominance by hydrophytes4 or b) the presence of hydric5 soils. CDFG does not normally assert jurisdiction over wetlands unless they are subject to Streambed Alteration Agreements (CDFG Code Sections 1600–1616) or they support state-listed endangered species.

Other Waters of the U.S.

"Other waters of the U.S." refers to additional features that are regulated by the CWA but are not wetlands (33 CFR 328.4). To be considered jurisdictional, these features must exhibit a defined bed and bank and an ordinary high water mark. The term ordinary high water mark refers to a line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other means appropriate to the characteristics of the surrounding areas. Examples of other waters of the U.S. include rivers, creeks, ponds, and lakes.

U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Regulations

The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the Clean Water Act. Projects that would result in the placement of dredged or fill material into waters of the United States require a Section 404 permit from the Corps. Some classes of fill activities may be authorized under General or Nationwide permits if specific conditions are met. Nationwide permits do not authorize activities that are likely to jeopardize the existence of a threatened or endangered species (listed or proposed for listing

4 A *hydrophyte* is, literally, a water loving plant, i.e., one that is adapted to growing in conditions where the soil lacks oxygen, at least periodically during the year, due to saturation with water.

5 A *hydric* soil is one that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile.

under the FESA). In addition to conditions outlined under each Nationwide Permit, project-specific conditions may be required by the Corps as part of the Section 404 permitting process. When a project's activities do not meet the conditions for a Nationwide Permit, an Individual Permit may be issued.

Section 401 of the Clean Water Act requires an applicant for a Corps permit to obtain state certification that the activity associated with the permit will comply with applicable state effluent limitations and water quality standards. In California, water quality certification, or a waiver, must be obtained from the Regional Water Quality Control Board for both Individual and Nationwide Permits.

The Corps also regulates activities in navigable waters under Section 10 of the Rivers and Harbors Act. The construction of structures, such as tidegates, bridges, or piers, or work that could interfere with navigation, including dredging or stream channelization, may require a Section 10 permit, in addition to a Section 404 permit if the activity involves the discharge of fill.

Finally, the federal government also supports a policy of minimizing "the destruction, loss, or degradation of wetlands." Executive Order 11990 (May 24, 1977) requires that each federal agency take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.

In recent years several Supreme Court cases have challenged the scope and extent of the Corps' jurisdiction over waters of the United States and have led to several reinterpretations of that authority. The most recent of these decisions are the case of *Solid Waste Agency of Northern Cook County* (SWANCC) *v. the Army Corps of Engineers* (January 9, 2001) and *Rapanos v. United States* (June, 2006). The SWANCC decision found that jurisdiction over non-navigable, isolated, intrastate waters could not be based solely on the use of such waters by migratory birds. The reasoning behind the SWANCC decision could be extended to suggest that waters need a demonstrable connection with a 'navigable water' to be protected under the CWA. The introduction of the term isolated has led to the consideration of the relative connectivity between waters and wetlands as a jurisdictionally relevant factor. The more recent Rapanos case further questioned the definition of "waters of the United States" and the scope of federal regulatory jurisdiction over such waters but resulted in a split decision which did not provide definitive answers but expanded on the concept that a 'significant nexus' with traditional navigable waters was needed for certain waters to be considered jurisdictional.

On June 5, 2007 the EPA and the Corps released guidance on CWA jurisdiction in response to the Rapanos Supreme Court decisions, which can be used to support a finding of CWA coverage for a particular water body when either a) there is a significant nexus between the stream or wetland in question and navigable waters in the traditional sense; or b) a relatively permanent water body is hydrologically connected to traditional navigable waters and/or a wetland has a surface connection with that water. According to this guidance the Corps and the EPA will take jurisdiction over the following waters: 1) Traditional navigable waters, which are defined as all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the

tide; 2) Wetlands adjacent to traditional navigable waters; including adjacent wetlands that do not have a continuous surface connection to traditional navigable waters; 3) Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months); and 4) Wetlands adjacent to non-navigable tributaries as defined above; that have a continuous surface connection to such tributaries (e.g. they are not separated by uplands, a berm, dike, or similar feature).

The EPA and the Corps decide jurisdiction over the following waters based on a fact-specific analysis to determine if there is a significant nexus, as defined below, to a traditional navigable water: a) Non-navigable tributaries that are not relatively permanent; b) Wetlands adjacent to non-navigable tributaries that are not relatively permanent; and c) wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

The EPA and the Corps *generally* do not assert jurisdiction over: 1) swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) or 2) ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The EPA and the Corps have defined the significant nexus standard as follows:

1. A significant nexus analysis assesses the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters;

2. Significant nexus analysis includes consideration of hydrologic and ecologic factors including: a) volume, duration, and frequency of flow, including consideration of certain physical characteristics of the tributary; b) proximity to a traditional navigable water; c) size of the watershed; d) average annual rainfall; e) average annual winter snow pack; f) potential of tributaries to carry pollutants and flood waters to traditional navigable waters; g) provision of aquatic habitat that supports a traditional navigable water; h) potential of wetlands to trap and filter pollutants or store flood waters; and i) maintenance of water quality in traditional navigable waters.

State

San Francisco Bay Water Quality Control Board

The San Francisco Bay Regional Water Quality Control Board (SFRWQCB) regulates waters of San Francisco Bay under the Porter-Cologne Water Quality Control Act. Under Section 401 of the Clean Water Act, the SFRWQCB has review authority of Section 404 permits. The SFRWQCB has a policy of no net loss of wetlands and typically requires mitigation for all impacts to wetlands before it will issue a water quality certification. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the state, and prospective dischargers are required to submit a report of waste discharge to the SFRWQCB.

Regional Water Quality Control Board

The San Francisco Bay RWQCB is responsible for the protection of beneficial uses and the water quality of water resources within the San Francisco Bay region under the Regional *Water Quality Control Plan*. The San Francisco Bay RWQCB also administers the *National Pollutant Discharge Elimination System* (NPDES) stormwater permitting program and regulates stormwater in the San Francisco Bay region. Project applicants are required to apply for a NPDES General Permit for discharges associated with project construction activities of greater than one acre.

California Fish and Game Code

Under Sections 1600–1616 of the California Fish and Game Code, the CDFG regulates activities that would substantially divert, obstruct the natural flow of, or substantially change rivers, streams, and lakes. The jurisdictional limits of the CDFG are defined in Section 1602 of the Fish and Game Code as the "bed, channel, or bank of any river, stream, or lake." Activities that would "deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" are prohibited by the CDFG unless a streambed alteration agreement is issued. Potential impacts to the jurisdictional area of the CDFG are considered significant in this EIR.

Local Plans and Policies

City of Napa Municipal Code

Trees

The Municipal Code designates specific parts of the City where a tree permit is required for tree removal/impacts, tree replacement measures for those trees removed, and tree protection measures for those trees that will be retained. Trees on city property require a permit to injure, destroy, or remove them, or to place stone, cement, plastic, or any other substance which impedes the free access of water or air to the roots, within 20 inches of the trunk. Prior to construction, trees are required to be protected from damage to trunks, branches, roots, or damage caused by soil compaction or contamination.

All landscape materials are protected (12.44.040) and native trees are protected on private property. Permits are required to prune any branch or limb of a protected native tree greater than four inches in diameter or remove more than 10 percent of any live foliage in any one year period, cut any root over two (2) inches in diameter within the drip line area, change, by more than two feet, grade elevations within the drip line area, place or allow to flow into or over the drip line area any oil, fuel, concrete mix or other substance that could injure the tree, and removal.

Creeks and Other Watercourses

The Napa Municipal Code Section 17.52.110 includes regulations pertaining to stream bank safety, and protection and enhancement of riparian habitat corridors. This section establishes a stream setback distance of at least 20 feet from the top of bank, or more if riparian habitat is present.

Wetlands/marshes

The Napa Municipal Code Section 17.52.530 includes regulations for protecting and restoring wetland areas, such as avoiding significant wetlands, protecting the wetlands with buffers, and creating management plans that monitor the health of significant wetlands near new development.

City of Napa General Plan

The City of Napa General Plan – Envision Napa 2020 (General Plan), adopted in December 1998 outlines policies, standards and programs that together provide a comprehensive, long-term vision for physical development of Napa. Individual development projects proposed within the City must demonstrate general consistency with the goals and policies outlined within the General Plan, which articulates and implements the City's long-term vision as it pertains to housing, transportation, historic preservation, open space and other areas.

The proposed project analyzed in this EIR is the Specific Plan, which is would be an amendment to the General Plan. Once adopted, future developments within the Downtown would be subject to policies outlined in the Specific Plan. Any proposed goals and policies applicable to biological resources are discussed under the Impacts and Mitigation Measures section of this chapter.

Natural Resource Element

Goal NR-1: To manage the natural resources, wetlands and open space areas in and around the city to preserve and enhance plant and wildlife habitats.

Policy NR-1.1. The City shall protect riparian habitat along the Napa River and its tributaries from incompatible urban uses and activities.

Policy NR-1.2. The City shall identify existing wildlife habitat corridors and seek to protect them from being severed or significantly obstructed.

Policy NR-1.3. The City shall encourage the planting of native plants species in natural habitats.

Policy NR-1.4. The City shall review all future waterway improvement projects (e.g., flood control, dredging, private development), as well as all projects that are within 100 feet of the waterway, to ensure that they protect and minimize effects on the riparian and aquatic habitats. The City shall also encourage native plantings along the river and creek banks to stabilize the banks, reduce sedimentation, reduce stormwater runoff volumes, and enhance aquatic habitats.

Policy NR-1.5. The City shall pursue federal and state funding to restore and enhance wetland, riparian, and fish habitats.

Policy NR-1.6. The City shall require as a condition of approval that development provide protection for significant on-site natural habitat whenever possible.

Policy NR-1.7. During development review, the city shall endeavor to identify and protect significant species and groves or clusters of trees on project sites.

Policy NR-1.8. The City shall provide controlled access points in designated areas to prevent unrestricted public access to riparian habitat on public lands.

Policy NR-1.10. The City shall pursue appropriate new management practices for reducing the impact of pollution from urban activities.

Policy NR-1.12. The City shall provide for the use of permeable or semi-permeable materials for parking lots and other off-street paved areas.

Policy NR-1.13. The City shall require that the composting and recycling of landscape maintenance debris be located so as to avoid impacts on wetland, riparian, and fish habitat.

Policy NR-1.A. The City shall review and modify as necessary existing regulations for the conservation and management of marsh, wetland, riparian, wildlife and plant habitats to ensure consistency with the General Plan.

Policy NR-1.C. The City shall develop guidelines and regulations to encourage new development to protect and enhance on-site habitat and incorporate it into the project. The City will allow the creation of off-site habitat on public or private land as an alternative if it is demonstrated to be infeasible to incorporate significant habitat protection into plans.

Policy NR-1.D. The City shall investigate the possibility of an ordinance to establish a maximum watercraft speed to protect against bank erosion from wakes, and shall develop informational/instructional signage for watercraft users.

Policy NR-1.E. The City shall continue to require implementation of sensitive construction practices that minimize erosion and sedimentation, protect native and other important trees, restrict riparian encroachment, and maintain unobstructed drainageways.

Goal NR-2: To recognize and support the preservation of rare, endangered, and threatened species and of other unique and fragile biological environments.

Policy NR-2.1. The City shall maintain information about the location of endangered, threatened, and rare species.

Policy NR-2.3. The City shall continue to refer development proposals in sensitive areas to state and federal wildlife agencies for review and comment.

Policy NR-2.4. When acting as a project proponent or when reviewing proposals for private projects requiring discretionary review by the City, the City shall ensure that its environmental review documents identify any feasible means of avoiding any net loss of habitat or of habitat value for endangered, threatened, and rare species. When necessary or desirable, such avoidance can be achieved through off-site mitigation measures. As part of the environmental review, the City shall determine whether the Department of Fish and Game, in implementing the California Endangered Species Act, and/or the United States Fish and Wildlife Service in implementing the Federal Endangered Species Act, will likely require mitigation sufficient to avoid any net loss of habitat or of habitat value for such species. Where these agencies are likely to require such a level of mitigation, the City may formulate its own mitigation

measures so as to minimize the extent to which those measures duplicate the efforts of these agencies.

Policy NR-2.B. The City shall prepare and maintain a set of resource maps identifying known locations of rare and endangered species and sensitive habitats for staff use as a reference during the Initial Study review of Individual projects.

Goal NR-4: To protect and enhance surface water and ground water quality

Policy NR-4.1. The City shall support the maintenance and improvement of surface and ground water quality.

Policy NR-4.2. The City shall support the maintenance and improvement of water quality in the Napa River.

Policy NR-4.3. The City shall support the monitoring and assessment of the effects of dredging in the Napa River.

Policy NR-4.4. The City shall adopt standards and regulations for the reduction and/or elimination of nonpoint sources of pollution.

Policy NR-4.5. The City shall maintain and strengthen where feasible current efforts to eliminate point sources of pollution.

Policy NR-4.6. The City shall cooperate with Napa County to maintain the current program to identify and remove leaking underground storage tanks.

Policy NR-4.7. Encourage design of projects to avoid covering[6] creeks and drainageways whenever possible.

Land Use Element

Policy LU-10.3. The City shall encourage the maintenance of wildlife corridors (as described in Chapter 7, Natural Resources) and discourage the fragmentation of large natural plant communities when environmentally-sensitive sites are developed.

Parks and Recreation Element

Policy PR-5.7. In creekside areas, the City shall develop trails outside any riparian setback requirements whenever possible.

Goal PR-6: To develop a major public multi-use trail and amenities along the Napa River, while protecting and enhancing the natural resources along the trail corridor.

Policy PR-6.3. Trail development shall be consistent with protection and enhancement of wildlife habitats along the River. The City shall identify potential areas for habitat preservation and enhancement along the river during the preparation of trail design and development plans. The City shall design and locate the multi-use trail to minimize impacts to sensitive habitats and resources wherever possible.

6 The term “covering” is limited to the use of culverts.

Other Planning Area Relevant Documents

The Napa River Parkway Master Plan and the Parks and Facilities Master Plan both refer to General Plan policies.

Impacts and Mitigation Measures

Significance Criteria

Based on policy and guidance provided by CEQA (Public Resources Code §21001 and CEQA *Guidelines*), an effect of the proposed project would be considered significant if it causes one or more of the following impacts:

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 CDFG or USFWS;

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 CDFG or USFWS;

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;

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;

e) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish[7] or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare, or threatened species;

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

g) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved plan.

Approach to Analysis

Potential impacts were evaluated based on a review of the following sources:

- Existing resource information and aerial photographs of the Planning Area;
- Data presented in the CNDDB (CDFG, 2011), CNPS *Electronic Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2011), and USFWS (2011) for the Napa

[7] Fish are discussed in Sections 5.13.5 through 5.13.8.

and Cuttings Wharf USGS 7.5 minute topographic quadrangles, which include the preferred project site and vicinity;

- Standard biological references (e.g., Hickman, 1993; Mayer and Laudenslayer, 1988; Sibley, 2001);
- Other available literature regarding the natural resources of the Planning Area.

A list of special-status species that have the potential to occur in the Planning Area, due to the presence of basic habitat types that they inhabit was prepared. Species were designated as having a "low potential" for occurrence if: (1) their known current distribution or range is outside of the study area, (2) only limited or marginally suitable habitat is present within the study area, (3) their specific habitat requirements (e.g., serpentine grasslands, as opposed to grasslands occurring on other soils) are not present, or (4) they are presumed, based on the best scientific information available, to be extirpated from the study area or region. We designated a species as having a "moderate potential" for occurrence if there is low to moderate quality suitable habitat within the study area or immediately adjacent areas. A species would be designated as having a "high potential" for occurrence if (1) moderate to high quality habitat is present within the study area, and (2) the study area is within the known range of the species.

For the analysis presented below, impacts resulting from implementation of the Specific Plan were considered to be significant if they had the potential to:

- Have a substantial adverse effect on special-status species that were found to have moderate or high potential to occur;
- Result in the fill of or otherwise cause degradation of potentially jurisdictional waters;
- Have a substantial adverse effect on areas designated as a sensitive natural community in this EIR;
- Otherwise exceed the significance criteria outlined above.

Based on existing site conditions and the established significance criteria, the Specific Plan has the potential to adversely impact special-status species. Implementation of General Plan policies would generally contribute to lessening biological resources impacts within the Planning Area.

Impacts and Mitigation Measures

Impact 4.C-1: Development facilitated by the Specific Plan could potentially have a substantial effect on any species identified as a threatened, endangered, candidate, sensitive, or special-status species. (Significant before Mitigation)

Several special-status animal species are known to occur or have the potential to occur within or adjacent to the Planning Area such as: the Mason's lilaeopsis, Central Valley Chinook salmon, Central Coast steelhead, Sacramento splittail, California red-legged frog, foothill yellow-legged frog, northwestern pond turtle, special status birds, and special status bats.

Plants

Mason's lilaeopsis is found along the eastern boundary of the Planning Area, along the Napa River in silt-filled cracks of old rotting dock pilings along the Napa River (CDFG, 2009). As stated in the Setting Section under special-status species, proposed Specific Plan activities are not expected to impact this population.

Fish Species

Stream or river related development under the Specific Plan, may pose direct and indirect impacts to special-status fish species, which may be considered significant. Indirect impacts may occur with the loss of open water fish habitats or with the obstruction of flow, both of which may inhibit passage (CDFG, 1998) (**see Impact 4.C-2**). Other indirect impacts upon special-status species may develop due to a loss of riparian vegetation which could lead to an increase in water temperature which would directly affect species. Additionally, added light, glare, noise, and vibration, may modify the behavior of migratory or resident fish. General Plan policies that would help to avoid or compensate for impacts to special-status fish species are listed below. However, to assure that future projects under the Specific Plan would avoid impacts to special-status fish **Mitigation Measure 4.C-1a** is required.

Reptiles and Amphibians

Construction under the Specific Plan may impact special-status reptiles and amphibians directly. Indirect impacts to species could occur from habitat alteration and removal because it could affect the ability of these species to find food and cover.

Impacts on special-status reptiles and amphibians potentially present in either Napa Creek or Napa River would be avoided or mitigated to less-than-significant levels through the General Plan policies and implementation programs listed below.

Birds and Bats

During construction, the removal of any trees or other vegetation associated with development under the Specific Plan could result in direct losses of nests, eggs, or nestlings and such impacts on special-status birds and bats would be considered significant. These impacts would be avoided or mitigated at less-than-significant levels through the General Plan policies. However, bird-safe construction timing, and building and design measures have not addressed by General Plan policies and therefore **Mitigation Measure 4.C-1b** is required.

A long-term increase in noise and activity also would result from development facilitated by the Specific Plan, and may correlate to a rise in ambient noise levels that could cause nest abandonment and death of young avian species or loss of reproductive potential at active nests or roosts located in the Planning Area. However, ambient levels are fairly high relative to natural situations because Planning Area is already developed, and the existing condition constitutes the CEQA baseline. Additionally, new lighting could influence normal activity (such as singing behaviors and foraging) and cause increased predation due to greater visibility of individual birds and bats (Longcore and Rich, 2004). Bird-safe design of subsequent development projects could minimize bird mortality. The following measures are based on the Bird-Safe Building Guidelines

developed by the New York Audubon Society and the Bird Friendly Building Program developed by the Fatal Light Awareness Program (www.flap.org), and should be considered and incorporated, to the extent feasible, during building design and operations of subsequent development projects under the Specific Plan. These measures would help to minimize the potential impacts identified above to migrating birds in the Planning Area.

Bird-safe Building Guidelines

a. Minimize the use of reflective glass at lower building levels, especially where vegetation or water features may be reflected;

b. Minimize bird habitat near ground stories, place new landscaping far enough away from glass building facades such that no vegetation reflection occurs, or situate trees and shrubs immediately adjacent to glass walls at a distance of less than three feet from the glass;

c. Minimize the reflection of rooftop landscaping in adjacent building features and design with adequate space for birds to fly safely into and out of any rooftop gardens;

d. Avoid placing water features in close proximity to glazed facades, or place soil berms, furniture, landscaping, or architectural features to prevent reflection of water in glass;

e. Design to avoid monolithic, undistinguishable expanses of glazing by maximizing "visual noise" both on the building scale and individual glass units;

f. Utilize glass that has been treated to reduce reflectivity, such as low-e patterning[3], etching, or low reflectivity glazing;

g. Where appropriate use plastic or metal screens over windows, especially on the ground levels, incorporate louvers, awnings, sunshades or other exterior shading/shielding devices to reduce reflection and give birds an indication of a visual barrier;

h. Angle glass to reflect the ground instead of nearby habitat and sky;

i. Minimize the number of, and co-locate, rooftop antennas and other structures;

j. Utilize self-supporting lattice or monopole structures that do not require guy wires.

The following General Plan policies and implementation program would help avoid and/or mitigate potential effects on special-status animal species:

> ***Policy NR-2.1.*** This policy states that the City will maintain information about the location of endangered, threatened, and rare species. Having this information on hand will help guide/design development so as not to impact these sensitive species or their habitats.
>
> ***Policy NR-2.3.*** This policy states that the City will refer development proposals in sensitive areas to appropriate state and federal agencies for review and comment. These agencies are responsible for the protection of endangered species and their habitats.

3 Low emissivity (e) glass controls heat radiation and also distorts reflections, which prevents birds from flying into glass windows.

Policy NR-2.4. Requiring environmental review will identify any alternatives that may avoid impacts to special status species and their habitats. State and federal agencies are also involved in this process and may require additional mitigation measures to ensure no net loss of habitat or habitat value for special status species. Off-site mitigation may be an option.

Policy NR-1.7. This policy is aimed specifically at protecting significant species and groves or clusters of trees during the development process.

Policy NR-4.7. Projects shall be encouraged to avoid covering creeks whenever possible.

Implementation Program

NR-2.B. The City will be responsible for knowing the location of rare and endangered species and sensitive habitats for reference during project development. Knowledge of the location of special-status species and sensitive habitats may help to avoid impacts during the planning process.

As adherence to General Plan policies may not mitigate all impacts to species identified as a threatened, endangered, candidate, sensitive, or special-status species, the following mitigation is required:

Mitigation Measure 4.C-1a: The City shall ensure that the Specific Plan design guidelines and development standards incorporate the following measures to reduce or avoid impacts to fish species:

- Avoid, reduce, or compensate for indirect impacts to fish species; for example, removal of riparian vegetation would require compensatory shade plantings.
- Design creek and river crossings so as to maintain connectivity and allow for unimpeded flow of water, and if at all possible avoid building piers or footings within the channel.

Mitigation Measure 4.C-1b: Pre-Construction Special-Status Avian Surveys. No more than two weeks in advance of any tree or shrub pruning, removal, or ground-disturbing activity that will commence during the breeding season (February 1 through August 31), a qualified wildlife biologist will conduct pre-construction surveys of all potential special-status bird nesting habitat in the vicinity of the planned activity. Pre-construction surveys are not required for construction activities scheduled to occur during the non-breeding season (August 31 through January 31). Construction activities commencing during the non-breeding season and continuing into the breeding season do not require surveys (as it is assumed that any breeding birds taking up nests would be acclimated to project-related activities already under way). Nests initiated during construction activities would be presumed to be unaffected by the activity, and a buffer zone around such nests would not be necessary. However, a nest initiated during construction cannot be moved or altered.

***If pre-construction surveys indicate that no nests of special-status birds are present or that nests are inactive or potential habitat is unoccupied*:** no further mitigation is required.

***If active nests of special-status birds are found during the surveys*:** implement Mitigation Measure 4.C-1c.

Mitigation Measure 4.C-1c: Avoidance of active nests. If active nests of special-status birds or other birds are found during surveys, the results of the surveys would be discussed with the California Department of Fish and Game and avoidance procedures will be adopted, if necessary, on a case-by-case basis. In the event that a special-status bird or protected nest is found, construction would be stopped until either the bird leaves the area or avoidance measures are adopted. Avoidance measures can include construction buffer areas (up to several hundred feet in the case of raptors), relocation of birds, or seasonal avoidance. If buffers are created, a no disturbance zone will be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted will take into account factors such as the following:

1. Noise and human disturbance levels at the Plan area and the nesting site at the time of the survey and the noise and disturbance expected during the construction activity;
2. Distance and amount of vegetation or other screening between the Plan area and the nest; and
3. Sensitivity of individual nesting species and behaviors of the nesting birds.

Significance after Mitigation: Less than Significant.

Impact 4.C-2: Development facilitated by the Specific Plan could potentially have a substantial effect on habitat (including habitats for rare and endangered species as defined by the California Fish and Game Code or other sensitive natural communities identified in local or regional plans, polices, regulations, or lists complied by CDFG or USFWS. (Less than Significant)

The Planning Area contains both stream and riparian habitat, notably Napa Creek and Napa River, which flow through and adjacent to the Downtown, and may therefore be affected by implementation of the Specific Plan. Napa Creek and Napa River are considered jurisdictional waters, and fill of jurisdictional waters is regulated under Sections 401 and 404 of the Clean Water Act and Sections 1600–1616 of the California Fish and Game Code (see **Impact 4.C-4**). These jurisdictional waters provide habitat for steelhead trout (an anadromous fish federally listed as threatened) and support a variety of plants and animals, including special-status species.

Development facilitated by the proposed Specific Plan within vegetated areas that are within close proximity to Napa Creek and Napa River, would impact habitats through the temporary loss of upland refugium, alteration of natural and landscaped areas, general construction activities, an increase in people and potentially off-leash pets, change in storm water runoff which may affect flow in either of the jurisdictional waters, or through the potential discharge of hazardous materials into habitats.[8] Any of these indirect impacts to the habitat of special-status species could cause harm or result in the death of such species and be considered a significant impact.

[8] For hydrology and water quality specific avoidance measures in the form of local plans and General Plan Policies please refer to Section 4.H *Hydrology and Water Quality* of this document.

The temporary loss of upland refugium, alteration of natural and landscaped areas, general construction activities, increase in people or off-leash pets, a change in stormwater runoff, or the discharge of hazardous materials into habitats could result in direct impacts to habitat and would be considered significant. These impacts would be avoided to less-than-significant levels through the General Plan goals and policies.

Implementation of the following proposed General Plan policies and implementation programs (in addition to NR-1.7, NR-2.3, and NR-2.4 stated above) would help mitigate degradation of creek and riparian habitats, and other sensitive communities that may be caused by developments permitted under the Specific Plan:

> ***Policy NR-1.1.*** This policy will help protect riparian habitat from incompatible urban uses/activities.
>
> ***Policy NR-1.2.*** The goal of this policy is aimed at protecting wildlife corridors such as Napa Creek and Napa River and these shall be protected by not severing or obstructing them. All developments which proposed to cross or alter Napa Creek and Napa River shall take into consideration the potential impact the development may have upon its ability function as a wildlife corridor.
>
> ***Policy NR-1.3.*** Planting native species will be encouraged in natural areas which will improve wildlife habitat.
>
> ***Policy NR-1.4.*** Impacts from waterway improvement projects such as the public boat dock and all improvements within 100 feet of Napa Creek or Napa River will be reviewed by the City and effects on riparian and aquatic habitat shall be minimized, if not improved.
>
> ***Policy NR-1.6.*** The City will require that development will provide protection of significant on-site natural habitat, when possible.
>
> ***Policy NR-1.8.*** The City shall control access to riparian habitat on public lands.
>
> ***Policy NR-1.10.*** This policy aims at protecting the environment from pollution related to urban activities via new management practices.
>
> ***Policy NR-1.13.*** The location of composting and recycling of landscape debris will be disposed of so as to avoid impacts to wetland, riparian, and fish habitat. Locating composting and landscaping debris away from natural areas will deter use and spread of non-native plant and wildlife species.
>
> ***Policy PR-5.7.*** This policy states that trails are to be developed outside of any riparian setback requirements whenever possible.
>
> ***Policy PR-6.3.*** This policy relates to trail development and its intent is to be consistent with the protection and enhancement of wildlife habitat which may require locating the trail away from sensitive habitats and resources.

Implementation Programs

NR-1.C. On-site habitat protection and enhancement shall be encouraged, but off-site habitat creation will be allowed as an alternative if on-site avoidance and improvements are infeasible.

NR-1.D. Watercraft speed will be evaluated and an ordinance developed if necessary to protect against bank erosion. Educational materials may also be provided by means of signage.

The implementation of the proposed Specific Plan would be required to adhere to General Plan policies outlined for Impact 4.C-2 which would reduce impacts to habitat areas and wildlife movement corridors to a less than significant level. Therefore this would be a less than significant impact.

Mitigation: None Required.

Impact 4.C-3: Development facilitated under the Specific Plan could potentially interfere with the movement of native resident or migratory fish or wildlife species, with established migration or dispersal corridors, or with the use of native wildlife nursery sites. (Significant before Mitigation)

While most of the Planning Area is developed and lacks habitat value, Napa River and Napa Creek, and landscaped areas within the vicinity, provide a wildlife corridor for fish, waterfowl, other birds, bats, and mammals. Development facilitated under the Specific Plan, such as the pedestrian trail improvements and railroad and road crossings, are not anticipated to substantially modify established migration or dispersal corridors; however because some projects would be located near, on, and over Napa Creek and Napa River, impacts as a result of these projects may occur.

Fish

Both Napa Creek and Napa River have been altered by human development and their existing state has an impact on the habitat quality for migratory salmonids and fish species (please refer to the *Surface Water* discussion within the *Setting* section of 4.*H Hydrology and Water Quality* for a more in depth analysis). However, suitable breeding habitat is present within both the Napa Creek and the Napa River.

Although projects directly affecting fish species are not part of the Specific Plan, stream or river related development under the plan may pose indirect impacts to special-status fish species, which may be considered significant. Indirect impacts may lead to loss of open water fish habitats, obstruction of flow which may inhibit passage, or may also impact the quality of Napa Creek and Napa River functioning as a migratory corridor for special-status fish species by adding light, glare, noise, vibration and through riparian habitat loss. Such impacts of future projects on, adjacent to / and over Napa Creek and Napa River, would significantly impact the functional capacity and / or the quality of these natural areas as migratory corridors.

Reptiles and Amphibians

Potential habitat of the California red-legged frog, foothill yellow-legged frog, and the northwestern pond turtle is located in both Napa Creek and Napa River. While both creeks are surrounded by urban development, relatively undisturbed habitats outside of the Planning Area could contain breeding populations of California red-legged frog, foothill yellow-legged frog, and the northwestern pond turtle. Individuals from outside of the Planning Area could move into sections of either Napa Creek or Napa River within the Planning Area. Upland habitat for California red-legged frogs and foothill yellow-legged frogs is marginal at best due to the surrounding development, and it is not anticipated that individual frogs present in Napa Creek or Napa River would move upland from the riparian corridor.

However, loss of riparian vegetation, could impact aquatic habitat (as discussed in Impact 4.C-2). Impacts on the aquatic habitat of special-status species potentially present in either Napa Creek or Napa River would be avoided or mitigated to less-than-significant levels through the General Plan goals and policies.

Birds and Bats

Potential nesting habitat for several special-status raptors, passerines, and bat species is present in the riparian corridors associated with Napa Creek and Napa River and within planted/landscaped trees.

All native raptors, their nests, and eggs are protected under CDFG Code 3503.5. The saltmarsh common yellowthroat may also breed in marsh areas within the Planning Area, as well as migratory waterfowl protected under the Migratory Bird Treaty Act. In addition, CDFG Code 3503 protects the needless destruction of nests or eggs of most passerine bird species. Other common birds that could be found nesting in landscaped areas within the Planning Area, or in the riparian corridors, include killdeer, mourning dove, black phoebe, red-winged blackbird, rock dove, and others.

Several special-status bat species, including the pallid bat, Townsend's big-eared bat, western red bat, long-eared myotis, long-legged myotis, fringed myotis, and Yuma myotis could also potentially roost and breed in trees and abandoned or underutilized buildings in the Planning Area. Development facilitated under the Specific Plan may lead to the alteration or demolition of existing structures and tree removal in the Planning Area. Activities associated with these changes may destroy maternity roosts, as well as directly contribute to construction noise, which could adversely impact special-status bat species.

Impacts on the habitat of special-status bat species potentially present within the Planning Area would be avoided or mitigated to less-than-significant levels, as any new developments shall consider the following goals, policies and implementation programs within the General Plan aimed at protecting the movement of wildlife within corridors such as Napa Creek and Napa River in the Natural Resource Element (policies include NR-1.1, NR-1.2, NR-1.6, NR-1.13, and NR-4.7), as well as:

> ***Policy LU-10.3.*** This policy states that the City shall encourage development of environmentally-sensitive sites such as Napa Creek and Napa River, to maintain wildlife corridors and not divide large natural plant communities (such as riparian vegetation communities) which may impact the corridor's ability to function.

Additionally, adherence to General Plan policies may not mitigate all impacts to the movement of native resident or migratory fish or wildlife species, with established migration or dispersal corridors, or with the use of native wildlife nursery sites, the following mitigation is required:

> **Mitigation Measure 4.C-3:** Implement Mitigation Measures 4.C-1a and 4.C-1b.

Significance after Mitigation: Less than Significant.

Impact 4.C-4: Development facilitated by the Specific Plan could potentially alter urban land uses and adversely affect wetlands, streams, or riparian habitat. (Less than Significant)

No formal wetland delineation has been carried out in support of the Specific Plan, but the Napa River and the Napa Creek both border or run through the Planning Area and in-stream wetlands may occur within the boundary of these waters. Potential significant impacts resulting from construction related to development facilitated by the Specific Plan include, but are not limited to, permanent fill, or temporary disturbance, of jurisdictional waters; degradation of water quality and aquatic habitat; degradation of wetland habitat; and accidental discharge of sediment or toxic materials into wetlands.[9] Fill and excavation in areas considered jurisdictional waters requires permitting and authorization from the appropriate regulatory agencies. Failure to proceed without permits or approvals would be in violation of these regulations.

Construction involving ground disturbance, addition of dirt, or realignment or modification of recreational trails on the tops of levees or on any surfaces sloping down towards the bed and bank of either Napa River or Napa Creek would require a Nationwide Permit from the Corps and 401 water quality certification from the Regional Board. Corps policies for wetland protections focus first on avoidance. If avoidance is not feasible, compensatory mitigation is required. Typically compensatory mitigation can consist of onsite or offsite wetland enhancement or creation, or in-lieu compensation in the form of payment into existing programs, mitigation banks, or other mechanisms deemed suitable by the permitting agencies. Corps wetland replacement ratios are typically 1:1 or greater for area replaced to area lost.

Additionally, projects that may impact wetlands or streams within the Planning Area are would need to comply with the City's General Plan policies. The General Plan contains goals and policies related to wetlands and riparian habitat, and calls for their protection through avoidance, minimization, and/or compensatory mitigation.

[9] For hydrology and water quality specific avoidance measures in the form of local plans and General Plan Policies please refer to Section 4.H *Hydrology and Water Quality* of this document.

The implementation of the following policies would avoid or mitigate the potential loss of jurisdictional wetlands and waters:

> ***Policy NR-1.5.*** Restoration and enhancement wetland, riparian, and fish habitats will be pursued by the City.
>
> ***Policy NR-4.1.*** Any of the development projects that may alter Napa Creek or Napa River or surface water flows in general shall take into consideration this policy which is aimed at maintaining and improving surface and ground water quality
>
> ***Policy NR-4.2.*** This policy is aimed at maintaining and improving surface and ground water quality with regard to the Napa River specifically. The public boat dock, trail, and any crossings shall consider how it may impact water quality and what actions it may do to improve it.
>
> ***Policy NR-4.4.*** Reducing or eliminating nonpoint source pollution is the intent of this policy and new developments provide information on how they proposed to do so.
>
> ***Policy NR-1.10.*** See Impact 4.C-2.
>
> ***Policy NR-1.12.*** Implementation of this policy may reduce impacts to water quality and riparian habitats by minimizing peak surface water runoff through the use of permeable or semi-permeable pavers for parking lots and other off-street paved areas.
>
> **Implementation Program**
>
> ***NR-1.A.*** Modification of existing conservation and management of marsh, wetland, riparian, wildlife and plan habitats shall be reviewed and modified by the City as necessary to ensure consistency with the General Plan.

The implementation of the proposed Specific Plan would be required to adhere to General Plan policies outlined for Impact 4.C-4, above which would reduce impacts to wetlands, streams, or riparian habitat to a less than significant level. Therefore this would be a less than significant impact.

Mitigation: None Required.

Impact 4.C-5: Development facilitated by the Specific Plan could potentially alter urban land and could conflict with local plans or ordinances, or any applicable habitat conservation plan or natural community plan. (Less than Significant)

The Planning Area is covered by the City of Napa Municipal Code, and the General Plan. Development facilitated by the Specific Plan would not fundamentally conflict with any part of the Municipal Code or General Plan. Further, the Planning Area is not within any habitat conservation or natural community conservation plan, and therefore, no conflict with any habitat conservation or natural community conservation plan will result.

Mitigation: None Required.

Cumulative Impacts

This analysis evaluates whether the impacts of implementation of the Specific Plan, together with the impacts of cumulative development, would result in a cumulatively significant impact on special-status species, wetlands and other waters of the U.S., or other biological resources protected by federal, state, or local regulations or policies (based on the significance criteria and thresholds presented earlier). This analysis then considers whether the incremental contribution of the Specific Plan to this cumulative impact would be considerable. Both conditions must apply in order for a project's cumulative effects to rise to the level of significance. The geographic context for analysis of cumulative impacts to biological resources includes sites within and adjacent to the Planning Area.

Impact 4.C-6: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future projects, could potentially result in minimal direct mortality and loss of habitat for special-status species, wetlands, and waters of the U.S. (Less than Significant)

Environmentally protective laws and regulations have been applied with increasing rigor since the early 1970s and include the California Endangered Species Act, Federal Endangered Species Act, and the Clean Water Act, as described in the *Regulatory Setting* earlier in this EIR chapter. Actions undertaken under the General Plan and other future projects within the cumulative geographic context would be required to comply with local, state, and federal laws and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources, including wetlands, other waters of the U.S., and special-status species. Additionally, new projects would be required to demonstrate that they would not have significant effects on these biological resources, although it is possible that some projects may be approved despite having significant, unavoidable impacts on biological resources.

Napa County's population is expected to increase in coming years, which would result in a decrease in habitat for native flora and fauna, increased indirect effects such as noise disturbance, increased night lighting, harassment from pets, increased mortality from automobiles, and increased fragmentation of habitat.

Implementation of the Specific Plan would not result in a considerable incremental contribution to cumulative impacts, because the Planning Area is built out and remaining potential development would not constitute substantial conversion of natural habitat conditions. Also, projects would have to adhere to the General Plan goals, policies, and implementation programs in addition to regulations set forth by State and federal agencies.

Mitigation: None Required.

References – Biological Resources

Brown, H., Caputo, S., McAdams, E.J., Fowle, M., Phillips, G., Dewitt, C., Gelb, Y. (May, 2007). Bird-safe Building Guidelines, New York Audubon, available online: http://nycaudubon.org, accessed 08/25/11.

California Burrowing Owl Consortium, Burrowing Owl Survey Protocol and Mitigation Guidelines, 1997.

California Department of Fish and Game (CDFG). Staff Report on Burrowing Owl Mitigation, California Department of Fish and Game, Sacramento, CA, September 25, 1995.

California Department of Fish and Game (CDFG). 1998. *California Salmonid Stream Habitat Restoration Manual, 3rd Edition, Part X Fish Passage Evaluation At Road Crossings* (Part X is in preparation, expected fall 2001).

California Department of Fish and Game (CDFG). List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Data Base, May 2003.

California Native Plant Society (CNPS). 2009. Inventory of Rare and endangered Plants for the Napa and Cuttings Wharf USGS 7.5-minute topographic quadrangles. Available online at: http://www.cnps.org/inventory. Site accessed 2009 Mar 24.

California Natural Diversity Data Base (CNDDB). Rarefind version 3.1.0 query of the Napa and Cuttings Wharf USGS 7.5-minute topographic quadrangles. Commercial version, March 1, 2009.

City of Napa, *City of Napa General Plan, Final Environmental Impact Report*, December 1, 1998.

City of Napa, *Napa General Plan – Envision Napa 2020*, 2006. http://74.205.120.199/index.php?option=com_content&task=view&id=417&Itemid=531, site accessed 2009 Mar 24.

City of Napa, Napa Municipal Code online. http://74.205.120.199/index.php?option=com_content&task=view&id=27&Itemid=49, site accessed 2009 Mar 24.

Dewey, B.M., and Campbell, A.R., 2000, Lighting and Avian Mortality: A Literature Review, memorandum dated August 26, 2000.

Hickman, J.C. (ed.), The Jepson Manual of Higher Plants of California, University of California Press, Berkeley, California, 1993.

Jennings, M.R., Natural history and decline of native ranids in California, In: H.F. De Lisle, P.R. Brown, B. Kaufman, and B.M. McGurty (Eds.), Proceedings of the Conference on California Herpetology, Southwestern Herpetological Society, 1988.

Jennings, M. and M. Hayes, Amphibian and Reptile Species of Special Concern in California, California Department of Fish and Game, Rancho Cordova, California, 1994.

Leidy, R.A. *Ecology, Assemblage Structure, Distribution, and Status of Fishes in Stream Tributary to the San Francisco Estuary, California*. San Francisco Estuary Institute, Oakland, CA, 2007.

Longcore, T. and Rich, C., *Ecological Light Pollution*. Front Ecol Environ, 2004. 2(4): 191-198.

Mayer, K.E. and W.F. Laudenslayer (eds.), A Guide to Wildlife Habitats of California, California Department of Fish and Game, Sacramento, CA, 1988.

Napa County Resource Conservation District, *Napa Creek Salmon Monitoring Report – Year 1 Report*, June 2006.

Napa County Resource Conservation District, *Napa River Salmon Monitoring Program – Spawning Year 2006 Report*, June 2007.

National Marine Fisheries Service (NMFS), endangered and threatened Species; Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California; Final Rule. Federal Register, Vol. 70, No. 170, September 2, 2005.

Ogden, L.E. (January, 2002). Summary Report on the Bird Friendly Building Program: Effect of Light Reduction on Collision of Migratory Birds, Special Report for the Fatal Light Awareness Program, available online: www.flap.org, accessed 8/25/11.

Sawyer, J.O. and T. Keeler-Wolf, A Manual of California Vegetation, California Native Plant Society, Sacramento, CA, 1995.

Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

Stebbins, R.C., A Field Guide to Western Reptiles and Amphibians, Houghton Mifflin Company, Boston, MA., 236 pp., 1985.

U.S. Fish and Wildlife Service (USFWS), Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the California Red-Legged Frog, Fed. Reg., Vol. 61, No. 101, May 23, 1996.

U.S. Fish and Wildlife Service (USFWS), Endangered and Threatened Wildlife and Plants: Designation of Critical Habitat for the Tidewater Goby; Final Rule, Fed. Reg., Vol. 65, No. 224, November 20, 2000.

U.S. Fish and Wildlife Service (USFWS), Final Determination of Critical Habitat for the California Red-legged Frog in Alameda, Butte, Contra Costa, El Dorado, Fresno, Kern, Los Angeles, Marin, Mariposa, Merced, Monterey, Napa, Plumas, Riverside, San Benito, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano, Sonoma, Stanislaus, Tehama, Tuolumne, and Ventura Counties, California, Fed. Reg., Vol. 66, No. 49, March 13, 2001.

U.S. Fish and Wildlife Service (USFWS), Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). USFWS, Portland, Oregon, May 2002.

U.S. Fish and Wildlife Service (USFWS), Endangered and Threatened Wildlife and Plants: Proposed Designation of Critical Habitat for the California Red-legged Frog (*Rana aurora draytonii*): Proposed Rule, Fed. Reg., Vol. 69, No. 71, April 13, 2004.

U.S. Fish and Wildlife Service (USFWS), Endangered and Threatened Wildlife and Plants: Designation of Critical Habitat for the California Tiger Salamander, Central Population; Final Rule, Fed. Reg., Vol. 70, No. 162, August 23, 2005a.

U.S. Fish and Wildlife Service (USFWS), Endangered and Threatened Wildlife and Plants: Designation of Critical Habitat for the California Tiger Salamander in Sonoma County; Proposed Rule, Fed. Reg., Vol. 70, No. 147, August 2, 2005b.

U.S. Fish and Wildlife Service (USFWS), Endangered and Threatened Wildlife and Plants; Revised Proposed Designation of Critical Habitat for the California Red-legged Frog (*Rana aurora draytonii*); Proposed Rule, Fed. Reg., Vol. 70, No. 212, November 3, 2005c.

U.S. Fish and Wildlife Service (USFWS), Federal Endangered and Threatened Species in the Napa and Cuttings Wharf USGS 7.5-minute topographic quadrangles, online database available at: www.fws.gov/sacramento/es/spp_lists/auto_list_form.cfm, dated January 29, 2009.

Western Bat Working Group (WBWG), 2005, Species Accounts. Available at: www.wbwg.org/speciesinfo/species_accounts.

Zeiner, D.C., W.F. Laudenslayer, K.E. Mayer, and M. White, California's Wildlife. Vols. I, II and III, California Statewide Wildlife Habitat Relationships System (Version 7.0), California Department of Fish and Game, Sacramento, CA, 1990. Available online at http://www.dfg.ca.gov/whdab/html/cawildlife.html.

4.D Cultural Resources

This section presents a summary of the prehistory and history of the Downtown Napa Specific Planning Area and an overview of known cultural resources. Cultural resources include historic-era architectural and structural resources, archaeological resources, paleontological resources, and human remains. This section also identifies potential impacts to cultural resources within the Planning Area that could result from implementation of the Specific Plan.

In order to identify the types and quantity of cultural resources within the Planning Area, a records search was conducted at the Northwest Information Center of the California Historical Resources Information System (NWIC) at Sonoma State University on April 23, 2009 (File No. 08-1300). The records were accessed by utilizing the Napa, California, U.S. Geological Survey 7.5-minute quadrangle base map. Also reviewed were the California Inventory of Historical Resources (DPR, 1976), California Historical Landmarks (OHP, 1990), California Points of Historical Interest (OHP, 1992), and Historic Properties Directory Listing (OHP, 2008). The Historic Properties Directory includes listings of the National Register of Historic Places and the California Register of Historical Resources, and the most recent listings of California Historical Landmarks and California Points of Historical Interest. Much of the historical information provided in the Historic Overview subsection of this report originated from the City-wide Historic Context Statement, Heritage Napa (Page & Turnbull, 2009).

Setting

Archaeological Resources

Prehistoric Setting

Categorizing prehistoric times into broad cultural stages allows researchers to describe a wide number of archaeological sites with similar cultural patterns and components during a given period of time, thereby creating a regional chronology. This section provides a brief discussion of the chronology for the Planning Area.

A framework for the interpretation of the San Francisco Bay Area, including Napa County, is provided by Milliken et, al. (2007), who have divided human history in California into three broad periods: the Early Period, the Middle Period, and the Late Period. Economic patterns, stylistic aspects, and regional phases further subdivide cultural patterns into shorter phases. This scheme uses economic and technological types, socio-politics, trade networks, population density, and variations of artifact types to differentiate between cultural periods.

The Paleoindian Period (11,500 to 8000 B.C.) was characterized by big-game hunters occupying broad geographic areas – evidence for this period has not yet been discovered in the San Francisco Bay or Sonoma County vicinity. During the Early period, consisting of the Early Holocene (8000 to 3500 B.C.) and Early Period (3500 B.C. to 500 B.C.), geographic mobility continued and is characterized by the millingslab and handstone as well as large wide-stemmed and leaf-shaped projectile points. The first cut shell beads and the mortar and pestle are first

documented in burials during this period, indicating the beginning of a shift to sedentism. During the Middle period, which includes the Lower Middle Period (500 B.C. to A.D. 430), and Upper Middle Period (A.D. 430 to 1050), geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The first rich black middens are recorded from this period. The addition of milling tools, obsidian and chert concave-base points, and the occurrence of sites in a wider range of environments suggest that the economic base was more diverse. By the Upper Middle Period, mobility was being replaced by the development of numerous small villages. Around A.D. 430 a "dramatic cultural disruption" occurred evidenced by the sudden collapse of the Olivella saucer bead trade network. During the Initial Late period (A.D. 1050 to 1550), social complexity developed toward lifeways of large, central villages with resident political leaders and specialized activity sites. Artifacts associated with the period include the bow and arrow, small corner-notched points, and a diversity of beads and ornaments.

Wappo

The Planning Area is situated within the ethnographic territory of the Wappo, a population of Yukian speaking, hunter-gatherer people with their own unique dialect and language. The Wappo occupied the northern Napa Valley and portions of the north and eastern Russian River Valley, within the Santa Rosa Plain. Geographically, the territorial area occupied by the Wappo stretched in a northwesterly direction from just north of the present-day cities of Napa and Sonoma to include the cities of Geyser, Cloverdale and Middletown at its northern extent (Kroeber, 1925:218–219, Plate 27; Barrett, 1908:264). This territory included the broad northwest-southeast trending river valleys and associated tributaries, as well as the flanking mountains of the Coastal Range and a small enclave along the southern shore of Clear Lake called Lile'ek by the Pomo, their neighbors to the west (Kroeber, 1925:219). Isolated from other Yukian-speaking peoples this group was bound on all sides by other native groups, the Lake Miwok to the north, the Patwin (Wintun) to the south and east, the Pomo to the north and west, and the Coast Miwok to the southwest (Heizer and Whipple, 1971:Map 1).

The name Wappo is a version of the Spanish term "guapo" which means handsome or brave, a title given to this group during the time of the Missions as a result of their "stubborn resistance to the military adjuncts of the Franciscan establishments" (Kroeber, 1925:217). Stephen Powers recognized the original name for these peoples as Ashochimi, and noted that the use of the term "Wappo – The Unconquerable" by this population, in reference to itself, was common practice.

The settlement pattern for the Wappo included permanent villages in valleys, along rivers or other waterways, organized as districts of smaller settlements or 'tribelets' around "one larger and continuously inhabited town, the center of a community with some sense of political unity" (Kroeber, 1925:218). Tribelet chiefs were elected or appointed and resided at these major villages, and were responsible for maintaining relationships with other tribelets, as well as neighboring native tribes such as the Patwin, Pomo, and Miwok (Jones and Stokes, 2005:14–10). The Wappo tribelet chief was also responsible for the management of his or her village, performing functions of ceremonial moderator, and the primary source for dispute resolution (Sawyer, 1978:256–263). The subsistence strategy for the Wappo was that of the hunter-gatherer,

including a heavy dependence upon the acorn and other natively procured plants and the hunting of big and small game, which included bear, deer, elk, rabbits, and birds, among others.

Material culture traits for the Wappo are shared with their neighboring cultural groups, predominantly those of the Pomo. A wide variety of stone tools manufactured from locally accessible raw material sources were an important part of the Wappo assemblage. Common tool types are projectile points, drills, knives, and scrapers of chert, basalt, or preferably, obsidian. Napa Glass Mountain, "a regionally important obsidian site and quarry, and other local obsidian sources are situated within Wappo territory, a resource which greatly enhanced the trading power of this group (Jones and Stokes, 2005:14-10, 14-11). The basketry of the Wappo was of noted quality, made from a unique weaving technique utilizing a variety of locally accessible plant materials; this technique is believed to have originated with the Pomo, the western neighboring group of the Wappo. Houses of the Wappo were constructed of a domed framework of branches that were tied together, covered with leaves and smaller branches in the summer, and branches with mud in the winter. Animal bones as well as marine shells from coastal locations were used as a form of currency, to fashion jewelry, beads, awls, and other functional tools (Sawyer, 1978:261–262).

It is surmised that the population of the Wappo prior to European contact may have exceeded 1,000 persons before falling drastically to 40 persons in 1908. During Spanish occupation, the Wappo were notably resistant to all attempts of subjugation, from which they obtained their title. Despite this resistance, this native population was eventually brought under the control of the Mission at Sonoma, between 1823 and 1834. The remaining population was eventually moved to a reservation in Mendocino, where the majority perished, eventually leading to the closure of the reservation in 1867 (Kroeber, 1925:221; Sawyer, 1978:258–259).

Prehistoric Archaeological Resources

The confluence of Napa River and Napa Creek is located within the Planning Area. Native American use and occupation sites tend to be located near waterways, as well as along ridgetops, midslope terraces, alluvial flats, the base of hills, and near vegetation ecotones. Therefore, areas near these natural features are most likely to contain recorded or still undiscovered prehistoric resources. In addition, the Napa Valley contained an important obsidian source for Native American tool manufacture.

The 2009 review of the records and literature on file at the NWIC indicates that no prehistoric archaeological resources have been recorded within the Planning Area. However, remnants of Native American civilization have been discovered all along Napa Creek and its tributaries outside of the Planning Area. Historic-period development within the Planning Area may have covered and/or disturbed prehistoric archaeological materials. Therefore, there is the potential for finding Native American sites in the Planning Area. Types of prehistoric materials that would indicate Native American use and occupation in the Napa Planning Area might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally-darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains;

stone milling equipment (mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones.

In 2001, an archaeological database known as "Pastfinder" was prepared for the City by Archaeological Resource Service. For every parcel within the City, the database rates it's archaeological sensitivity as low, moderate, or high, and provides a reference to any existing reports and recommendations for archaeological mitigations:

- **Areas of high archaeological sensitivity.** These are locations near where historic or prehistoric sites have been reported, or places similar to locations where archaeological resources have been reported.

- **Areas of moderate archaeological sensitivity.** These are locations that share some attributes with locations where archaeological sites are located, but are not considered as likely to contain archaeological deposits.

- **Areas of low archaeological sensitivity.** Filled lands, excavated areas, and other locations that are considered unlikely to contain surface evidence of archaeological resources. Some of these locations will retain the general sensitivity to buried resources that exists throughout the city.

For each parcel reviewed, several factors were considered to establish the level of archaeological sensitivity and provide recommendations for additional work if deemed necessary:

- **Evaluated Parcels – Positive.** Archaeological deposits, historic, prehistoric or both, have been identified. Recommendations for mitigation of negative impacts are on file. Archaeological evaluation of any proposed project is appropriate.

- **Evaluated Parcels – Negative.** Archaeological deposits are not present on the parcel. Archaeological evaluation failed to discover any evidence of historic or prehistoric sties. Recommendations may be on file regarding buried resources, reports resources that were not found, etc. Existing reports should be consulted and any existing recommendations considered. These parcels should not require additional evaluation.

- **Unevaluated Parcels – High Sensitivity.** Archaeological evaluation consisting of a literature check and surface examination of each parcel is recommended. Minor subsurface examination may be appropriate in some cases. The evaluation should be performed as a requirement of any permitted land use change.

- **Unevaluated Parcels – Moderate Sensitivity.** Archaeological evaluation consisting of a literature check and surface examination of each parcel is recommended. The evaluation should be performed as a requirement of any permitted land use change.

- **Unevaluated Parcels – Low Sensitivity.** Archaeological evaluation is not necessary as part of a permitted land use change. Provision should be made for unanticipated discovery of buried resources in all cases where the soils of the parcel are Quaternary alluvium.

Historic Overview

With Alta California's independence from Spain and the beginning of Mexican control, Napa County was subdivided into twelve ranchos: Humana Carne, Catacula, Caymus, Chimiles, Entre-Napa, Le Jota, Locoallomi, Napa, Tulucay, Yajome, Huichia, and Mallacomeato (Anonymous, 1891). The first non-Spanish American settler to the Napa Valley area was George C. Yount in 1831. Originally intending to travel to the Pacific Ocean to trap otter, Yount instead stopped early and worked as a carpenter for General Mariano Vallejo. In 1836, Yount received the 12,000-acre Rancho Caymus land grant, and in 1842 applied for and received the Rancho La Jota land grant on Howell Mountain.

Founding of Napa City

Between 1840 and 1845 many emigrant American families settled in the Napa Valley area. In 1847 Napa City was laid out by early settlers John Grigsby and Nathan Coombs on property they acquired from Nicholas Higuera's Rancho Entre-Napa. The original town limits only included land between Brown Street and the Napa River, extending 600 yards from Napa Creek to the steamboat landing at Third Street. Eventually several rancho land grants were combined to form the present-day town of Napa.

By December 1847, the first lots in the town had been purchased and the town's first commercial building, the "Empire Saloon" at Main and Third streets, was erected in May of the following year. The new town was called "Nappa City," although the second "p" was later dropped. Sources differ on the origin of the name, but it is believed to have derived from a Wappo word meaning "fish," the Pomo word "Nappo," meaning "village." In 1850, Napa County was established as one of California's original twenty seven counties, with Napa City as the county seat.

Gold Rush Era (1849 – 1860)

The discovery of gold in the foothills of the Sierra Nevada in 1848 brought miners and entrepreneurs to California from all over the world, and Napa Valley prospered as a result. Immediately after the discovery, the majority of Napa's residents left for the gold fields, leaving the new townsite deserted. However, the town's population soon returned, as merchants moved to Napa to establish businesses, and the region's mild climate attracted miners to Napa for the winter. Early Napa City residents were typically working-class men, as evidenced by the abundance of saloons, boarding houses, gambling houses, and general stores and by the distinct lack of schools, churches, and other family-oriented services.

By 1854, the city had between 300 and 400 permanent residents and nearly 40 wood-frame buildings, and it continued to grow steadily in both business and population. Early businesses in Napa City included the first general store, opened by J.P. Thompson at the foot of Main Street in 1848; Nathan Coombs' American Hotel at Main and Third streets in 1850; the Napa Hotel, founded by James Harbin in 1851; a blacksmith shop near the corner of First and Main in 1854; a bank established by J.H. Goodman & Co. in 1858; and a few additional saloons, restaurants, lodging houses, and stores. The first brick building, a small residence on the west side of town, was constructed in spring 1855 by John S. Robinson, and the first brick commercial building was

erected at the southwest corner of Main and First streets by Thomas Earl. Napa's first courthouse was constructed in 1851 at the northwest corner of Coombs and Second streets. Other services were established as the town gained status; the first local newspaper, the Napa County Reporter, was published by Alexander J. Cox on July 4, 1856, and the first telegraph line was constructed between Vallejo and Napa in 1858.

Wealthy San Franciscans also sought out Napa as a place to establish summer resorts and country estates because of the valley's climate and geography, and by the late 1850s, Napa was a fashionable place to have a second address. White Sulphur Springs, founded in 1855 just outside St. Helena, was the first major resort to cater to this group. Guests from San Francisco came by way of the little steamer "Guadalupe" as far as Napa City, and from there by stagecoach to the resort. Calistoga Hot Springs was established in 1862, and numerous hotels were constructed in Napa City to serve travelers and tourists from around the Bay Area.

As Napa City grew in the wake of the Gold Rush, the Napa River continued to be the focal point of the town. The river undoubtedly played a role in Nathan Coombs' selection of the town site, as it connected the town to the greater Bay Area. Napa City's location at the head of the navigable section and at the ford just above it was also crucial. The first ferry service was established in 1848 by William Russell, and crossed the Napa River at Third Street. In 1850, The Dolphin, was the first passenger steamer to arrive in Napa from San Francisco. Steamships soon became common in Napa. Shipping passengers and goods to Napa became an important business for local merchants, and spurred commercial and residential development throughout the county.

In Napa City, businesses, factories, and warehouses clustered on both banks of the river for easy access to the shipping lines, and residential neighborhoods for laborers and merchants were established further inland. While the river sustained the new city by providing its economic base and a physical link to San Francisco, the river also presented an obstacle for early urban development. Once the county was organized, bridge-building became a top civic priority. The first bridge across the Napa River was constructed of wood at First Street in 1853, but was replaced in 1860 by a stone bridge. The Napa River was also prone to flooding, especially in the winter months. Floods destroyed early bridges, the debris from which would dam the river and in turn cause additional damage.

In Napa City itself, the initial street grid was dominated by First, Third, and Main streets, where the majority of public establishments like hotels and saloons were located and most business took place. While the roads in the city and the surrounding area were primitive, they were catalysts for development in Napa City.

Victorian Napa: 1860-1899

Napa grew steadily throughout the Victorian era as people continued to settle and more businesses were established in the town. Transportation, infrastructure, and social services were greatly improved, and by 1880, Napa had a bustling downtown and a population of approximately 4,000. Napa was officially incorporated on February 24, 1874, as the "City of Napa."

Napa City continued to grow during this period as the commercial center of the valley, and more industries were developed to provide the necessary base for economic growth. Spurring commercial growth was the establishment of the Napa Valley Railroad, which was completed in July 1865 which had a station at Fifth Street and Soscol Avenue. The Napa Valley Railroad was extended north to Calistoga Avenue in 1868, and was extended south to Napa Junction – now American Canyon—the following year, where it met up with other local rail lines.

Main Street grew as the mercantile center of Napa, but businesses were also located along Third, Second, First, Pearl, and Clinton streets. The financial center of the city was established on the "bank block" at Second and Main streets, anchored by the Bank of Napa, which was founded in 1871 by prominent local businessman and politician Chancellor Hartson. The Williams Block (1886) was the first major retail commercial development on Main Street north of Napa Creek. According to Sanborn Fire Insurance maps from the 1870s, the downtown district featured a wide variety of businesses ranging from bakeries, general stores, groceries, wholesale liquor stores, restaurants, and saloons to hotels, billiards halls, wagon repair shops, livery stables, saddle shops, clothing stores, cobblers, tailors, pharmacies, hardware stores, a photography studio, and a gunsmith.

The late Victorian era also saw a transition from the wood-frame false-front Italianate style commercial buildings of the 1850s-1870s to more permanent buildings of brick and stone. These materials were used for principal businesses, grain warehouses, banks, and schools, although residences, stables, and modest stores were still built of wood. The Semorile Building at 975 First Street and the Winship Building at the corner of First and Main, both designed by Luther Turton in 1888, are excellent examples of Victorian-era commercial architecture. Other notable buildings from this period remaining in downtown Napa include the Borreo Building, the Napa Valley Register Building, and the Kyser-Lui-Williams Block.

Residential development occurred in the City of Napa as business and industry gained success in the late nineteenth century. Napa featured a wide variety of residential building types ranging from mansions to farmhouses, flats, and cottages, often on the same block. Today, high concentrations of homes from the Victorian era remain along Calistoga Avenue, and in the Napa Abajo, St. John's, Spencer's Addition, and Fuller Park neighborhoods, with fewer examples in Downtown.

Early Twentieth Century (1900-1919)

By the turn of the twentieth century, Napa had grown into a self-sufficient town with successful industries, businesses, and residents. Still tied to its agricultural roots, Napa had a population of 5,500 in 1905. Over the next two decades, the arrival of interurban electric railroads would link Napa to Vallejo, San Francisco, and the rest of the Bay Area, boosting its economy and encouraging residential growth through World War I. Interurban rail service began in July 1905 carrying passengers and freight from Vallejo. Through the City of Napa, the tracks ran up Soscol Avenue to its depot at Third Street, turned west on Third Street, and proceeded north on Jefferson Street.

Napa's downtown commercial area was also growing, but not as rapidly as other Bay Area cities. The same types of businesses—stores, hotels, saloons, banks—proliferated in downtown Napa. Commercial buildings from this era were largely designed in the Twentieth Century Commercial, Beaux Arts, or Renaissance Revival styles, and were constructed in brick or native stone.

The growth of single-family neighborhoods established during the Victorian era continued after the turn of the twentieth century, although residential construction slowed during World War I. Napa neighborhoods continued to feature a mixture of large and small houses rendered in a wide variety of styles.

Prohibition & Depression (1920-1939)

In the 1920s and 1930s, Napa was a primarily a working class community. Most men worked union jobs at the local factories or at the nearby Mare Island Naval Shipyard. This era saw steady construction of single-family homes and the establishment of more factories, but Prohibition and the Great Depression greatly curbed economic development in Napa. Prohibition took effect in January 1920, and many of the wineries and breweries nationwide were shut down.

Despite these setbacks, new buildings were constructed downtown: the 1920's Gordon Building and Merrill's Building, both constructed on First Street in the Renaissance Revival style; the new Beaux Arts style Bank of Napa (1923, now Wells Fargo); and the Art Deco style Oberon Bar at 902 Main Street (circa 1880s, remodeled in 1933). The Franklin Station Post Office at 1351 Second Street (1932-33) was one of the many federal buildings across the country commissioned by the Works Progress Administration (WPA) to provide employment during the Depression. The 1,500-seat Hippodrome, which later became the Fox, was constructed in 1920 at First and Randolph streets (no longer extant), and the Uptown Theatre on Third Street opened in 1937, with 1,200 seats.

World War II & Post-War Era (1940-1965)

When the United States entered World War II in 1941, the entire Bay Area quickly became a manufacturing center for the production of wartime supplies as well as the departure point for the Pacific Theater. Napa's main contribution to the war effort came in supplying housing for defense workers, rather than in the actual production of goods. In 1930, Napa had a population of only 6,437; by 1950, that figure had jumped to over 13,000. Because of the large influx of people, infrastructure improvements and rapid suburban development occurred in Napa during the war and continued well into the postwar era. Up until that time, the city had grown in an organic piecemeal fashion, but with such a boom in population and physical growth, the first zoning ordinance was instituted in 1945. The availability of land and affordability of cars and gasoline did not create the need for increased density, so the City began to expand farther from Downtown.

1970s to Today

The City continued to grow throughout the postwar era, reaching a population of 37,000 by 1970. Housing prices increased, and the downtown was revitalized. In 1970, the City of Napa's application for the Neighborhood Development Program was approved and funded by the

U.S. Department of Urban Development, which initiated the first major phase of downtown redevelopment, which included the First Street beautification project, Brown Street Mall, a new downtown shopping mall, parking garages, new department stores (Mervyns and Carithers), and a one-time public art program. This effort led to the demise of some historic downtown commercial buildings, including the construction of a controversial clock tower and plaza on First Street to replace the Migliavacca Building (1905, demolished 1973), and the demolition of the Behlow Building (1900, demolished 1977) to make way for a new parking garage.

Beginning in the latter part of the twentieth century, the City of Napa and the Napa Community Redevelopment Agency has been instrumental in the preservation of numerous downtown properties, including the A. Hatt Building, the Kyser-Lui-Williams block, the Winship Building, Napa Valley Opera House, the Labor Temple Building, and others. The Agency continues to be proactive by offering incentives for seismic retrofitting of buildings on the unreinforced masonry list. In the early twenty first century, the Agency applied for and received preservation grants and oversaw the seismic retrofit of the historic Goodman Library and Borreo Building, both now owned by the City of Napa.

Survey Efforts

A number of prior survey efforts have occurred in the City of Napa, including the Downtown area. In some cases, these surveys have resulted in the designation of historic districts; other areas remain unlisted, though individual property records and evaluations are on file with the City of Napa Planning Department. The following section outlines past survey and inventory undertakings and their results.

Historic Resources Inventory (HRI)

The Historic Resources Inventory (HRI) is the City of Napa's official list of locally designated historic resources. The current HRI was adopted by the Napa City Council in 1997; it is regulated by the city's Historic Preservation Ordinance (Chapter 15.52 of the Napa Municipal Code), and is maintained by the Cultural Heritage Commission (CHC). The first historic resource inventory was conducted within the City of Napa in 1969. Subsequent surveys of varying scopes and methodologies were conducted in 1978, 1988, 1994, 1995, and 1998. These surveys covered Napa's central historic core either via a windshield analysis (more comprehensive, but less in-depth), or through an intensive-level inventory of specific neighborhoods (i.e. St. John's and Napa Abajo/Fuller Park – each discussed below).

Over 2,800 individual properties are currently listed on the HRI in the City of Napa. Properties listed on the HRI may be designated as Landmarks, Neighborhood Conservation Properties, or simply listed as significant. Depending on their Map Score (established by the 1995 Napa City-Wide Survey), properties listed on the HRI are subject to varying levels of design review by the CHC and staff.

A new approach for updating the City's Historic Resources Inventory was recently developed which includes a "crosswalk" from the current map score rating system, which has 5 ratings

(1 through 5), to the California Historic Resources Status Codes (CHRSC). While the CHRSC contains 48 codes, many do not pertain to Napa's Historic Resources Inventory, nor easily crosswalk to the current map scores. In order to simplify the HRI update process, the crosswalk approach was recommended by Page & Turnbull and deemed acceptable by the State Office of Historic Preservation and City staff. An alternate approach would be to re-survey all the properties in the HRI and assign them a CHRSC, which would be cost and resource prohibitive.

1978 Napa County Survey

The 1978 Napa County Historic Resource Survey (1978 Survey) was the first large-scale historic resource survey to be completed in the county, and was prepared for the City and County of Napa by Napa Landmarks Inc., using grant monies from the City and State. The 1978 Survey was one of Napa Landmarks' first large undertakings, and over 2,500 historic buildings, structures, and places throughout the county were photographed through an initial "windshield survey," and recorded on a Master List to create an inventory of historic resources. Official State Historic Resource Inventory forms were completed for some properties, but most were only documented by the Master List. The 1978 Survey also divided the city of Napa into nine survey areas based on historic context and development patterns: Downtown, Napa Abajo, St. John's, Spencer, West Napa, East Napa, Calistoga Avenue, Alta Heights, and Fuller Park. The 1978 Survey was undertaken during the early years of Napa's preservation movement, and also included recommendations for strengthening the local preservation planning process within Napa County. The 1978 Survey has been updated a number of times—both formally and informally—by City staff and has become the foundation for the city's Historic Resources Inventory as well as subsequent survey work.

Napa City-Wide Survey (1995)

The Napa City-Wide Survey was completed in 1995 by San Buenaventura Research Associates of Santa Paula, California, for the City of Napa Planning Department. A windshield survey was completed with the primary goal of producing a digital database of historic resources. The survey included a systematic inventory of all historic resources within the sections of the city urbanized prior to 1950. Resources in other portions of the corporate limits were also identified by the City-Wide Survey, but were not systematically surveyed. Buildings were rated according to a 1 to 5 point system called Map Score (MS). Of the 6,014 properties evaluated in the City-Wide Survey, 2,206 properties were identified as potential contributors to the formation of historic districts, while 93 properties were identified as potentially individually significant. The survey also identified Historic Resources Planning Areas (HRPAs) with high concentrations of historic resources to inform future planning projects. The results and methodology of the 1995 City-Wide Survey were adopted by the City Council in 1997 as the updated Historic Resources Inventory, and replaced the 1978 Master List.

Napa Abajo/Fuller Park Historic District

Immediately south of the Planning Area are the Napa Abajo and Fuller Park neighborhoods, which were first documented in 1994 through the "Fuller Park Historic Resources Inventory;" one of the city's first intensive-level surveys. The survey was intended to provide thorough

documentation of the Fuller Park neighborhood, with the ultimate goal of establishing a local historic district in the area. As a follow-up to the Fuller Park Historic Resources Inventory, the area was listed in the National Register of Historic Places as the "Napa Abajo/Fuller Park Historic District" in 1996. The district is comprised of 23 blocks surrounding Fuller Park and roughly bound by the Napa River, Pine, Jefferson, 3rd, 4th, and Division Streets, and includes 297 contributing and 308 non-contributing resources. The district was determined to be significant as a residential area of Napa during the period before the end of World War I, and contains a high concentration of historic resources.

St. John's Historic District

An intensive-level survey of the St. John's neighborhood was completed by the City of Napa in 1995. The survey documented residential buildings from the 1880s through the early 1950s in St. John's—roughly bounded by Lincoln Avenue, Yajome Street, Clinton Street, Brown Street, Hayes Street, and Jefferson Street. The survey also suggested several potential historic districts in the area. The St. John's Historic Resources Inventory included 230 State Historic Resources Inventory forms (DPR 523A), maps of the area, preliminary evaluations of districts and individual properties for eligibility for listing in the National Register of Historic Places, and an evaluation of the comprehensiveness of the 1995 City-Wide Survey.

Calistoga Avenue Historic District

Just north of the Planning Area is the Calistoga Avenue neighborhood. The Calistoga Avenue Historic District is the only locally-designated historic district in the City of Napa. Centered on Calistoga Avenue, the district primarily features residential buildings from the late nineteenth and early twentieth centuries, and was strongly influenced by the development of the electric railway in 1905. The Calistoga Avenue Historic District was surveyed and designated as a local landmark district in 1988. Alterations and demolitions within the district are subject to design review by the Cultural Heritage Commission. The district is not listed in the National Register of Historic Places.

ARG Windshield Survey of the Planning Area

Architectural Resources Group (ARG) was commissioned by the City of Napa to complete a "windshield survey" (walking site tour and visual observation) in April, 2009 of the Planning Area to confirm that all historic buildings in the Downtown are included on the HRI, and to identify buildings that may be missing from the HRI.

Initial survey results indicate that few historically significant buildings were omitted from the HRI. Some additional buildings, however, might be of historic merit to be placed on the HRI, but would require additional study to be certain. Such buildings fell into two categories; 1) buildings that have historic value but were not on the HRI list, and 2) buildings that might have historic value pending further research or removal of past alterations that could be hiding original material. The initial survey results also noted that although many buildings in the Downtown are in continuous use, others are vacant. Several buildings have undergone adaptive reuse and restoration while many have been substantially altered. The final results of the ARG windshield survey in tabular and graphical format is currently pending.

Downtown Napa Historic Context Statement & Survey Report

The *Downtown Napa Historic Context Statement & Survey Report* (Page & Turnbull, 2011) is a document that presents the history of the survey area; identifies important periods, events, themes and patterns of development; provides a foundation for evaluating historic properties; and details findings of the intensive-level architectural survey. The Intensive Level Survey evaluates historic resources in the Planning Area for their historic merit and determines whether each property is eligible for national, state and/or local listing as a historic resource. The results of the Intensive Level Survey are presented in **Figure 4.D-1**.

A summary of survey findings is as follows:

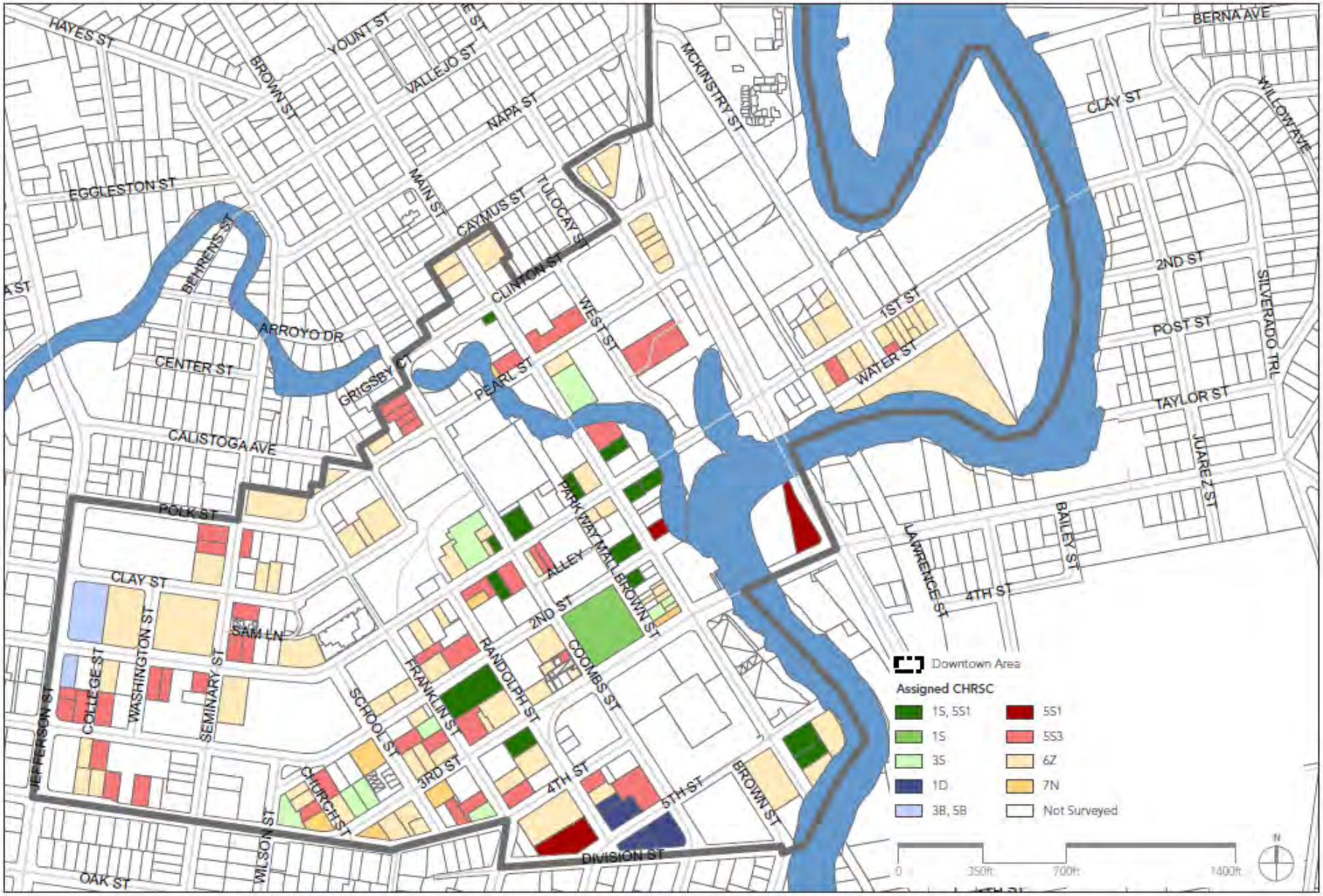
- 262 total parcels were included within the boundaries of the Downtown Napa Survey Area
- 186 age-eligible resources were documented in the survey database
- 57 DPR 523 B forms were completed
- 1 DPR 523 D Form was completed, documenting the potential Oxbow Historic District
- 7 DPR 523 L Forms were completed, updating previous documentation
- In addition to those already listed in the Napa HRI or documented on a DPR 523 Form, 8 additional age-eligible resources appear to warrant further individual evaluation for local listing (7N)
- 34 properties were surveyed, but not further documented due to obvious lack of integrity (6Z)
- 79 properties were not surveyed
  - 34 of these are age-ineligible
  - 44 of these are vacant parcels or parking lots

Historic-era Archaeological Resources

The 2009 review of the records and literature on file at the NWIC indicates that one historic-era archaeological resource has been recorded within the Planning Area. A historic-era refuse deposit was uncovered during archaeological monitoring on the western side of Napa River. The deposit included materials dating from 1870 to 1925; many of the bottles were embossed with local Napa insignia. There is the potential for finding additional historic-era archaeological sites within the Planning Area. Historic-era archaeological materials could include stone, concrete, or adobe footings and walls; artifact-filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.

Paleontological Resources

The following discussion of existing paleontological resources divides the rock units underlying the Planning Area into geologic units with varying degrees of fossil-yielding potential. High and low potential rocks are determined by applying the following criteria established by the Society of Vertebrate Paleontology (SVP, 1995):



NOTE: The definitions for the California Historical Resource Status Code (CHRSC) are presented in Table 4.D-1.

SOURCE: Page and Turnbull

Figure 4.D-1

Historic Resources within the Downtown Specific Plan Area

High Potential – Rock units (or formations) in which vertebrate or significant invertebrate fossils have been found. These rock units include sedimentary and some volcanic formations that contain significant fossil resources anywhere within their geographic extent and sedimentary deposits formed in a time period or composed of materials suitable for the preservation of fossils. Only invertebrate fossils that provide new information on existing flora or fauna, or on the age of a rock unit would be considered significant.

Low Potential – Rock units that have few, if any records of vertebrate fossil finds in institutional collections, or that have been shown in surveys or paleontological literature to be largely absent of fossil resources. Low potential rocks also include metamorphic and most volcanic rocks.

Although not discussed in SVP standards, artificial fills, slope deposits (such as colluvium, landslides and earth flows) and native soil are materials with little or no potential to contain paleontological resources. While such materials were originally derived from rocks or sediments, they have been weathered or reworked such that fossils would not likely be preserved.

Regulatory Framework

Federal Regulations

National Historic Preservation Act

Cultural resources are protected through the National Historic Preservation Act (NHPA) of 1966, as amended (16 USC 470f), and its implementing regulations. Prior to implementing an "undertaking" (e.g., issuing a federal permit), Section 106 of the NHPA requires federal agencies to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register. Under the NHPA, a find is considered significant if it meets the National Register listing criteria at 36 CFR 60.4, as stated below:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and
>
> a) That are associated with events that have made a significant contribution to the broad patterns of our history, or
>
> b) That are associated with the lives of persons significant in our past, or
>
> c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
>
> d) That have yielded, or may be likely to yield, information important in prehistory or history.

Federal review of projects is normally referred to as the Section 106 process. This process is the responsibility of the federal lead agency. The Section 106 review normally involves a four-step procedure, which is described in detail in the implementing regulations (36 CFR Part 800):

- Identify historic properties in consultation with the State Historic Preservation Officer and interested parties;
- Assess the effects of the undertaking on historic properties;
- Consult with the State Historic Preservation Officer, other agencies, and interested parties to develop an agreement that addresses the treatment of historic properties and notify the Advisory Council on Historic Preservation; and finally,
- Proceed with the project according to the conditions of the agreement.

Paleontological Resources Preservation Act

The federal Paleontological Resources Preservation Act (PRPA) of 2002 was enacted to codify the generally accepted practice of limiting the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers; these researchers must obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers (PRPA, 2007). The act also establishes penalties for illegal salvage of paleontological resources on public lands. This act incorporates key findings of a report, *Fossils on Federal Land and Indian Lands*, issued by the Secretary of Interior in 2000 which included input from staff of the Smithsonian Institution, United States Geological Society (USGS), various federal land management agencies, paleontological experts, and the public. The report establishes that most vertebrate fossils and some invertebrate and plant fossils are considered rare resources (U.S. Department of Interior, 2000).

State Regulations and Legal Compliance

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

California Environmental Quality Act

CEQA, as codified in PRC Sections 21000 et seq., is the principal statute governing the environmental review of projects in the state. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources. As defined in PRC § 21083.2, a "unique" archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

- Contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information;
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type; and/or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

The CEQA *Guidelines* define a historical resource as: (1) a resource in the California Register; (2) a resource included in a local register of historical resources, as defined in PRC § 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC § 5024.1(g); or (3) any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC § 21084.1 and CEQA *Guidelines* § 15064.5 would apply. If an archaeological site does not meet the CEQA *Guidelines* criteria for a historical resource, then the site may meet the threshold of PRC § 21083 regarding unique archaeological resources. A unique archaeological resource is "an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge.

The CEQA *Guidelines* note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (CEQA *Guidelines* § 15064[c][4]).

California Public Resources Code

Several sections of the California Public Resources Code (PRC) protect paleontological resources. Section 5097.5 prohibits "knowing and willful" excavation, removal, destruction, injury, and defacement of any paleontologic feature on public lands (lands under state, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted permission.

California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (California Public Resources Code [PRC] § 5024.1[a]). The criteria for eligibility to the California Register are based on National Register criteria (PRC § 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally eligible for or listed in the National Register.

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

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2) Is associated with the lives of persons important in our past;

3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,

4) Has yielded, or may be likely to yield, information important in prehistory or history [14 CCR § 4852(b)].

For a resource to be eligible for the California Register, it must also retain enough integrity to be recognizable as a historical resource and to convey its significance. A resource that does not retain sufficient integrity to meet the National Register criteria may still be eligible for listing in the California Register.

Senate Bill (SB) 18

Effective January 2005 and in conformance with SB 18, which was signed into law by the Governor of California in September 2004, starting on March 1, 2005 local governments are required to consult with tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The intent is to "provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places" (State of California, 2005).

According to the *Tribal Consultation Guidelines: Supplement to General Plan Guidelines* (2005), the following identifies the contact and notification responsibilities of local governments:

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission [NAHC]) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code § 65352.3).

- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period (Government Code § 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.

- Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code § 65092).

City of Napa

City of Napa General Plan

The City of Napa General Plan, *Envision Napa 2020* (City of Napa, 1998), outlines policies, standards and programs that together provide a comprehensive, long-term plan for physical development within the City. Individual development projects proposed within the City must demonstrate general consistency with the goals and policies outlined within the General Plan, which articulates and implements the City's long-term vision as it pertains to housing, transportation, historic preservation, open space and other areas. The goals and policies applicable to cultural resources include the following:

Goal HR-1: To preserve and maintain sites, buildings, and landscapes that serve as significant, visible reminders of the city's social, architectural, and agricultural history.

Policy HR-1.1. The City shall identify historical buildings, sites, features and districts that are reminders of past eras, events and people; significant examples of architectural styles; irreplaceable assets; or, examples of how past generations lived.

Policy HR -1.2. The City shall continue to identify historic objects and features that are a part of the city's cultural heritage. These elements include signs of all types, street light standards, stone bridges and walls, windrows, sculptures and remnants of historic infrastructure, such as historic storm drains, stone curbs, cobblestones and manhole covers.

Policy HR-1.3. The City shall continue to update and amend the City's historic resources inventory with intensive surveys.

Policy HR-1.4. The City shall review and strengthen its present legal framework and administrative procedures governing projects affecting historical resources.

Policy HR-1.5. The City shall adopt land use regulations that recognize, maintain, promote the historic patterns of housing densities and urban form.

Policy HR-1.6. The City shall use the State Historical Building Code to preserve historic resources consistent with protection of life safety.

Policy HR-1.7. The City shall preserve historic resources by nominating historic buildings and districts to the National Register of Historic Places and California Register of Historic Places.

Policy HR-1.8. The City shall document, review, and designate local landmarks and conservation districts identified in the citywide survey.

Policy HR-1.9. The City shall solicit property owners' support and adopt the Napa Abajo / Fuller Park National Register District as a local historic district, and other, future districts as they are identified through the ongoing survey process.

Policy HR-1.10. The City shall advocate specific projects, legislation and economic strategies which will realize preservation goals and policies.

Policy HR-1.11. The City shall work with construction trade groups to support apprenticeship programs that teach restoration techniques such as lead paint remediation, historic woodworking and finishing.

Policy HR-1.12. The City shall pursue funding and grant monies which could be used to further the goals and implement the historic preservation policies of this General Plan.

Policy HR-1.13. The City shall develop incentives to encourage owners to retrofit unreinforced masonry buildings.

Policy HR-1.14. The City shall create a list of volunteers willing to research historic resources.

Policy HR-1.15. The City shall identify and reinforce historic linkages between the natural and built environment.

Policy HR-1.16. The City shall work with other agencies to ensure that any future flood control project does not sever the historic relationship between the river and the adjacent historic neighborhoods and commercial areas.

Policy HR-1.17. When planning for transportation routes, the City shall seek routes and improvements that recognize and protect historic neighborhoods.

Policy HR-1.18. The City shall identify its historic gateways and support the preservation of their historic bridges, stone walls, street trees and viewsheds.

Policy HR-1.19. The City shall identify historic landscape features and landmark trees as a first step toward their preservation.

Policy HR-1.20. The City shall encourage landscape plans that enhance historic areas.

Implementation Programs

- ***HR-1.A.*** The City shall publicize and periodically update the survey results of the adopted 1994-95 Citywide Historic Resources Survey list of significant buildings.

- ***HR-1.B.*** The City shall continue to update and amend the City's historic resources inventory with intensive level surveys, using California Department of Parks and Recreation Office of Historic Preservation forms wherever possible.

- ***HR-1.C.*** The City shall develop a parcel-specific, computerized system to make historic inventory data available to each City department so that actions which might affect historic resources are evaluated appropriately and in a timely manner.

- ***HR-1.D.*** The City shall research and record locations of potential historic and archaeological sites within Napa, using historic Sanborn maps and other sources.

- ***HR-1.E.*** The City shall update the City's Historic Preservation Ordinance to reflect the requirements of the City's Certified Local Government status and current federal and state mandates and the policies of the General Plan.

- ***HR-1.F.*** The City shall revise the current ordinance governing the Certificate of Appropriateness process to define the approval process, including its time of occurrence, and hierarchies of review based upon level of impact and importance of the resource.

- ***HR-1.G.*** The City shall establish procedures and standards whereby properties on the list of architectural and historical resources are provided with alternatives to demolition. Alternatives could include moving the building, public or private purchase, or finding a new use. Should demolition occur, thorough documentation by photographs and measured drawings and salvage of irreplaceable materials should be required as a condition of approval. Expedite permit processes that allow for alternatives to demolition of historic properties.

- ***HR-1.H.*** The City shall review and update its procedures for designation and administration of local historic districts.

- ***HR-1.I.*** The City shall review and update the present interdepartmental review processes for projects affecting historic resources.

- ***HR-1.J.*** The City shall establish policies for non-conforming uses in historic districts. The City shall allow non-conforming uses to remain, if determined desirable for neighborhood character.

- ***HR-1.K.*** The City shall conduct a review of City policies, ordinances and programs to ensure consistency with historic preservation objectives, making necessary revisions where there is a conflict.

- ***HR-1.L.*** The City shall maintain a photographic record of successful restoration projects to inform future project proponents as to architectural styles, historic construction methods, probable materials and appropriate reconstruction techniques.

- ***HR-1.M.*** The City shall adopt design guidelines and standards to guide rehabilitation, infill and new development in historic areas.

- ***HR-1.N.*** The City shall develop a program to seek out endangered buildings and take steps to encourage their preservation and rehabilitation, including exploring financial incentives.

- ***HR-1.O.*** The City shall prepare information for the general public to explain the City's commitment to historic preservation, the approval process, regulations, financing strategies such as income tax credits or rehabilitation loans and the benefits of application of the State Historical Building Code.

- ***HR-1.P.*** The City shall prepare and periodically update its list of landmark trees and landscape features.

Goal HR-2: To encourage owners of historic resources to preserve or upgrade historic properties by improving their economic viability.

Policy HR-2.1. The City shall investigate incentives for single family residential restoration such as tax relief for designated landmarks or districts, and inform historic homeowners of available incentives.

Policy HR-2.2. The City shall investigate and publicize the use of various federal, state, local and private funding sources and economic mechanisms available to support historic resource preservation.

Policy HR-2.3. The City shall support the creation of a revolving loan fund for historic rehabilitation to be financed through public and private contributions with efforts to encourage banks to provide loans for rehabilitating historic properties financed with public and private contributions, for the acquisition or rehabilitation of historic properties.

Policy HR-2.4. The City shall encourage the formation of nonprofit corporations organized for the purpose of purchasing and rehabilitating at-risk historic properties. The City shall support the efforts of Napa County Landmarks, Inc., in this effort.

Policy HR-2.5. The City shall encourage the continuation and appropriate expansion of federal and state programs that provide tax and other incentives for the rehabilitation of historically- or architecturally-significant structures.

Policy HR-2.6. The City shall work with the County Assessor to create a property tax relief program for qualified historic structures (Mills Act).

Implementation Programs

- ***HR-2.A.*** The City shall establish criteria to evaluate alternatives in cases where owners of designated historic properties assert economic hardship, as well as establishing guidelines to assist the City in such determinations.

Goal HR-3 To promote community awareness and appreciation of Napa's history and architecture.

Policy HR-3.1. The City shall educate the community and historic property owners of the importance and benefits of, and opportunities for participating in, the preservation of resources.

Policy HR-3.2. The City shall support establishment of a Restoration Center by Napa County Landmarks, Inc., which would serve as a repository for information on

historic building methods, construction techniques and materials and which could provide technical advice and services for restoration.

Policy HR-3.3. The City shall support the preparation by Napa County Landmarks, Inc., or other private organizations and the Napa County Historical Society of a list of sources for historic research materials such as Sanborn Maps, old city maps, historic subdivision maps, and old photographs that would assist project proponents in identifying the historic conditions and context for their project.

Policy HR-3.4. The City shall support the efforts of private, nonprofit organizations to educate school children as to the value of local history and architecture, using historic inventory information.

Implementation Programs

- ***HR-3.A.*** Together with local preservation organizations, the City shall develop innovative community education programs such as local walking and bicycle tours; pamphlets and brochures about local architects, builders and styles; an oral historic program; a slide library of construction methods, successful rehabilitation efforts and videotapes on architectural/historical subjects for use in schools and homes.

Goal HR-4 To achieve a vital downtown that reflects its historic urban form and setting, offering a mix of old and new buildings.

Policy HR-4.1. The City shall promote the preservation of the historic urban form of the downtown. Historic heights, street faces and building massing shall be supported by new development.

Policy HR-4.2. The City shall evaluate historic unreinforced masonry (URM) buildings and wood framed structures in accordance with the provisions of the State Historical Building Code and provide for mitigation of URM hazards.

Policy HR-4.3. The City shall take advantage of the historic setting of downtown, and encourage lively, interactive uses throughout the day and into the evening.

Policy HR-4.4. The City shall support the downtown Facade Improvement Program to improve building fronts based upon historic commercial building design guidelines. Restoration could include the removal of facades which have been applied in the past to “update” structures.

Policy HR-4.5. The City shall maintain and restore City-owned properties identified as landmarks, within an historic district, or listed on the National Register of Historic Places.

Policy HR-4.6. The City shall work with the local tourism industry to support and foster historic resources as a destination, demonstrating that cooperation with the preservation community will improve the quality of the visitors' experience.

Implementation Programs

- ***HR-4.A.*** The City shall prepare design guidelines for the downtown to guide future development and restoration efforts.

- ***HR-4.B.*** The City shall develop and adopt an unreinforced masonry building (URM) hazard mitigation program.

- ***HR-4.C.*** The City shall identify historic signs, including painted wall signs, signs as architectural features, and historic neon signs, and provide incentives for their protection.

Goal HR-5 To maintain historic neighborhoods that provide a diverse mix of housing types and services to meet the needs of families and build a sense of community.

Policy HR-5.1. The City shall preserve the character, livability, and civic pride of Napa's historic neighborhoods through neighborhood conservation efforts.

Policy HR-5.2. The City shall prepare programs to guide future investment and development for designated or eligible historic districts.

Policy HR-5.3. The City shall target code enforcement to at-risk neighborhoods, or parts thereof. The City should also target Community Development Block Grant (CDBG) housing rehabilitation loan funds to these areas.

Policy HR-5.4. The City shall encourage heritage tourism by encouraging bed and breakfast inns, walking tours, home tours, and similar uses in historic neighborhoods.

Policy HR-5.5. The City shall explore methods to discourage through-traffic on streets in historic neighborhoods in order to maintain their livability and walkability.

Implementation Programs

- ***HR-5.A.*** The City shall continue its studies of historic neighborhoods and define those areas that merit special recognition and protection.

- ***HR-5.B.*** The City shall develop a paving standard, using historic grid patterns, for fixing and maintaining safe and walkable sidewalks in historic neighborhoods.

- ***HR-5.C.*** The City shall implement the design guidelines and neighborhood strategies for development that resulted from the Napa Abajo / Fuller Park National Register District workshops.

Goal HR-6 To preserve important archaeological resources.

Policy HR-6.1. The City shall enforce current federal and state and procedures for identifying, preserving and protecting prehistoric sites.

Policy HR-6.2. The City shall require investigation during the planning process for all proposed developments in archaeologically sensitive areas in order to determine

whether prehistoric resources may be affected by the project and, if so, require that appropriate mitigation measures be incorporated into the project design.

Policy HR-6.3. Recognizing that Native American burials or archaeological artifacts may be encountered at unexpected locations, the City shall continue to enforce state mandates with its current mitigation requirement, applied to all development permits and tentative subdivision maps, that upon discovery of remains during construction, all activity will cease until qualified professional archaeological examination and reburial in an appropriate manner is accomplished.

Policy HR-6.4. The City shall investigate ISTEA funding sources to identify and protect portions of the Silverado Trail and other Native American trails that developed over time into the roadways we now use.

City of Napa Municipal Code

The Napa Municipal Code Section 15.52 includes regulations pertaining to historic preservation and neighborhood conservation. This section includes General Plan policies and enforces important preservation and conservation concepts. In addition, this section defines the roles, criteria, and enforcement procedures of the cultural heritage commission and City of Napa. (City of Napa, 2011)

Downtown Napa Historic Resources Design Guidelines

The Downtown Napa Historic Resources Design Guidelines were prepared for the City of Napa as part of the proposed Specific Plan process (Page & Turnbull, 2011). The primary goal is to provide the City with a set of design guidelines that may be referenced by City staff, building owners, tenants, and residents to make informed design decisions regarding historic resources in Downtown. The purpose of the Design Guidelines is to clearly document the historic status of Downtown resources, identify character-defining features of each resource, and outline considerations for each building in light of its historic status.

The development recommendations included in these Historic Resources Design Guidelines are intended to supplement the general design guidelines presented in the proposed Specific Plan. The Design Guidelines are not a regulatory document, but rather are intended to allow flexibility for new growth while respecting the historic character of Downtown. Provided below are the primary goals and objectives described in the Design Guidelines.

Alterations to Historic Resources

- Where possible, follow the Secretary of the Interior's Standards for Rehabilitation;
- Avoid removal of historic materials or covering historic architectural details with modern cladding, awnings, or signage;
- Continue a building's original use if possible;
- Corner parcels will typically have at least two significant facades, both of which should be preserved;

- Use historic photographs where possible to inform accurate rehabilitation projects;
- Use paint colors that complement, rather than detract from, the historic character of the property; if possible, consult historic photographs or specifications to determine whether a paint scheme is historically appropriate;
- Working within the existing building envelope is recommended before proposing an addition. However, if additions are desired, they should generally be located on a secondary or rear facade—or set back from the primary façade if they are rooftop additions—and should not interfere with the building's roofline;
- For adaptive reuse of historic resources, consider consulting with a preservation architect to ensure renovations are compatible.

New Construction Adjacent To Historic Resources

- Consider how the style, massing, rhythm, setbacks, and materials of new construction may affect the character of adjacent historic resources.
- New construction near historic residential properties should be set back from the street, and should preserve the open space and rhythm between residences.
- New construction near historic commercial buildings can abut adjacent buildings to create a solid block face unless otherwise specified.
- If an addition or new construction is under consideration, reference the information for adjacent historic resources to verify that the proposed change is compatible with both the subject property and the adjacent historic resources.
- Because these Guidelines are not a regulatory document, the building code and zoning code should also be consulted to confirm applicable development regulations for each property.

Impacts and Mitigation Measures

Significance Criteria

CEQA considers that implementation of a proposed plan would have a significant impact on cultural resources if it were to:

a) Cause a substantial adverse change in the significance of a historical 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 of indirectly destroy a unique paleontological resource or site or unique geologic feature; or

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

Impacts and Mitigation Measures

Impact 4.D-1: Development facilitated by the Specific Plan could potentially have a significant impact on historic architectural resources. (Significant before Mitigation)

Historic resources range in construction date from the Victorian era through the post-World War II era, and are rendered in a variety of architectural styles. Historic commercial properties are generally centrally located in Downtown Napa, especially along Main, Brown, and Coombs streets and First, Second, and Third streets. Historic civic buildings also tend to be centrally located downtown. The Napa Mill complex in the southeast near the Napa River is the only historic industrial building complex remaining downtown.

The commercial core is surrounded by several historic residential neighborhoods that contain historic architectural resources: the Oxbow, or Cornwall's Addition, located to the northeast; St. John's Addition and the Calistoga Avenue Historic District, both located to the north; West Napa, located across Jefferson Street to the west; and the Napa Abajo/Fuller Park National Register Historic District, which overlaps with the southern portion of Downtown.

Within the Planning Area, historic residential development includes primarily single-family dwellings, with only a handful of examples of multi-family dwellings and apartment buildings. Historic residences are primarily located near the perimeter of the downtown, in transition areas to the adjacent historic neighborhoods of St. John's Addition, Calistoga Avenue, Napa Abajo, and Fuller Park. Institutional buildings, primarily churches and schools, are also located in the residential or transition areas of Downtown.

The Downtown Napa Historic Context Statement & *Survey Report and the Downtown Napa Historic Resources Design Guidelines* were prepared in conjunction with the Specific Plan (Page & Turnbull, 2010 and 2011). These documents provide a detailed list of all historic buildings in the Downtown and provide guidelines for the height of additions and adjacent new construction.

Implementation of the Specific Plan, including changes to land use designations and the zoning code, could potentially facilitate the alteration or demolition of recorded historic resources in Downtown Napa (i.e., cause a substantial adverse change in the significance of a historical resource as defined in CEQA *Guidelines* § 15064.5). For example, new development allowable under the Specific Plan could indirectly apply development pressures at or adjacent to historic resources which could alter their integrity through demolition or incompatible adjacent new construction. Implementation of the City of Napa Downtown Historic Design Guidelines, which call for the application of the *Secretary of the Interior's Standards* for both alterations to existing historic buildings and new development adjacent to historic buildings, would reduce the impact of the plan to a less than significant level. However, as the Design Guidelines are not a regulatory document, but instead provide general guidance to City staff, property owners, and project applicants, there is nothing mandating that these groups adhere to these Design Guidelines when implementing the Specific Plan. Therefore, impacts to historic resources are considered potentially significant.

The following mitigation measure would reduce impacts to historic architectural resources to a less-than-significant level.

> **Mitigation Measure 4.D-1:** The City shall require that any future development under the Specific Plan to meet the intent and goals of the City of Napa Downtown Historic Design Guidelines. This includes any project that would alter historic resources or would be constructed adjacent to a historic resource. Alternatively, the General Plan shall include a new policy which requires that any development in the Downtown Area adhere to the goals identified in the City of Napa Downtown Historic Design Guidelines.

Significance after Mitigation: Less than Significant.

Impact 4.D-2: Development facilitated by the Specific Plan could potentially affect Napa's Native American archaeological resources. (Significant before Mitigation)

The review of records and literature on-file at the NWIC indicates that no prehistoric or historic-period archaeological resources have been previously recorded within the Planning Area, However, remnants of Native American civilization have been discovered all along Napa Creek and its tributaries, both outside of the Planning Area and within portions of the Planning Area with moderate and high sensitivity for archaeological resources. Additionally, while historic-period development within the Planning Area may have covered and/or disturbed prehistoric archaeological materials, there is potential for obscured or deeply buried archaeological resources. Implementation of **Mitigation Measures 4.D-2a** and **Mitigation Measure 4.D-2b** below would reduce potential impacts to archaeological resources to a less than significant level.

> **Mitigation Measure 4.D-2a:** When specific projects are proposed under the Specific Plan that involves ground-disturbing activity into native soils, the City's "Pastfinder" archaeological database shall be consulted. Recommendations provided by the "Pastfinder" database shall be implemented based on a parcel's archaeological sensitivity. In those cases where a site-specific cultural resources study is necessary, it shall be performed by qualified cultural resources professional. The study will include an updated records search, pedestrian survey of the project area, development of a historic context, sensitivity assessment for buried prehistoric and historic-period deposits, and preparation of a technical report that meets federal and state requirements. If significant resources are identified and cannot be avoided, treatment plans will be developed in consultation with the City and Native American representatives to mitigate potential impacts to less than significant.

> **Mitigation Measure 4.D-2b:** Should any archaeological artifacts be found during construction in the Planning Area, all construction activities within 50 feet shall immediately halt and the City must be notified. A qualified archaeologist shall inspect the findings within 24 hours of the discovery. If the site is determined to contain significant cultural resources, funding will be provided to identify, record, report, evaluate, and recover the resources as necessary. Construction within the area of the find shall not recommence until impacts on the historical or unique archaeological resource are mitigated.

Additionally, Public Resources Code § 5097.993 stipulates that a project sponsor must inform project personnel that collection of any Native American artifact is prohibited by law.

Significance after Mitigation: Less than Significant.

Paleontological Resources

Impact 4.D-3: Development facilitated by the Specific Plan could potentially adversely affect unidentifiable paleontological resources. (Significant before Mitigation)

Impacts to paleontological resources would depend on both the degree of excavation that may occur as a result of a construction project allowable under the Specific Plan and the paleontological sensitivity of the area. The depth of excavation required to construct foundations for mixed-use, medium density structures is likely to be greater than the depth of existing fills and disturbed soils. While no information exists to refute or confirm the presence of fossils beneath the Planning Area, because the majority of the Planning Area is underlain by a geologic unit (Pleistocene alluvium) with high paleontological potential, subsurface excavations beyond previously disturbed soils could disturb or destroy paleontological resources. Therefore, impacts to paleontological resources would be potentially significant.

Mitigation Measure 4.D-3 would reduce this impact to a less-than-significant level by educating earth moving crews on the appearance of fossils, procedures to follow if any are discovered, and ensuring that a paleontologist assess the significance of any fossil find, and recovers it, if appropriate.

> **Mitigation Measure 4.D-3:** Prior to the start of any subsurface excavations that would extend beyond previously disturbed soils, all construction forepersons and field supervisors shall receive training by a qualified professional paleontologist, as defined by the Society of Vertebrate Paleontology (SVP),[1] who is experienced in teaching non-specialists, to ensure they can recognize fossil materials and will follow proper notification procedures in the event any are uncovered during construction. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying a qualified paleontologist, who will evaluate its significance. Training on paleontological resources will also be provided to all other construction workers, but may involve using a videotape of the initial training and/or written materials rather than in-person training by a paleontologist. If a fossil is determined to be significant and avoidance is not feasible, the paleontologist will develop and implement an excavation and salvage plan in accordance with SVP standards.[2]

Significance after Mitigation: Less than Significant.

---

1 SVP, 1995.
2 SVP, 1996.

Human Remains

Impact 4.D-4: Development facilitated by the Specific Plan could potentially disturb any human remains, including those interred outside of formal cemeteries (Significant before Mitigation)

Although unlikely to occur, development facilitated by the proposed Specific Plan could disturb any human remains, including those interred outside of formal cemeteries, as such remains could exist anywhere in Downtown. The following measures shall be implemented should construction activities result in the inadvertent discovery of human remains.

> **Mitigation Measure 4.D-4:** The treatment of any human remains and associated or unassociated funerary objects discovered during soil-disturbing activities shall comply with applicable state laws. Such treatment would include immediate notification of the Napa County Coroner. In the event of the coroner's determination that the human remains are Native American, the coroner shall notify of the Native American Heritage Commission, which would appoint a Most Likely Descendant (MLD) (PRC § 5097.98). The archaeological consultant, the Event Authority, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects (CEQA *Guidelines* § 15064.5[d]). The agreement would take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. The PRC allows 48 hours to reach agreement on these matters. If the MLD and the other parties could not agree on the reburial method, the Event Authority shall follow Section 5097.98(b) of the PRC, which states that "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."

Significance after Mitigation: Less than Significant.

Cumulative Impacts

The geographic context considered for the cumulative cultural resources impacts consists of the area surrounding the Planning Area, which, when combined with the Planning Area, could result in cumulative impacts. Given the nature of the potential impacts analyzed for this topic, the geographic scope would generally include projects within Downtown.

Historic Architectural Resources

Impact 4.D-5: Development facilitated by the Specific Plan, in combination with past, present, existing, approved, pending, and reasonably foreseeable future development that would involve demolition of historical resources in the vicinity of the Planning Area, could potentially form a significant cumulative impact to historical resources. (Significant before Mitigation)

Development facilitated by the Specific Plan could result in the demolition of historical resources, as defined by CEQA. Other past, present, existing, approved, pending, and reasonably

foreseeable future projects in Downtown that have, or will have, resulted in the demolition of historical resources could combine with the Specific Plan projects to form a significant cumulative impact to historical resources. Implementation of existing General Plan policies which call for the protection of historic resources, as well as the continued application of **Mitigation Measure 4.D-1**, would further reduce the potential for significant cumulative impacts to historic resources, should such resources be threatened in the future.

Significance after Mitigation: Less than Significant.

Archaeological and Paleontological Resources and Human Remains

Impact 4.D-6: Construction resulting from development facilitated by the Specific Plan, in combination with construction from other past, present, existing, approved, pending, and reasonably foreseeable future development in the vicinity, could potentially cause a significant cumulative impact to currently unknown cultural resources at the site, potentially including an archaeological resource pursuant to CEQA *Guidelines* § 15064.5 or CEQA § 21083.2(g), or the disturbance of any human remains, including those interred outside of formal cemeteries, as well as paleontological resources. (Significant before Mitigation)

Although the Planning Area or adjacent area have the potential to impact known archaeological or paleontological resources, and because such resources may exist anywhere in Downtown, accidental damage to previously unknown resources may occur due to ground-disturbing activities from any or all of the construction projects. In the unlikely event that such impacts were to occur with all of these projects, they could combine to form a significant cumulative impact to archaeological and paleontological resources. However, **Mitigation Measures 4.D-2**, **4.D-3**, **4.D-4** or similar, would be implemented by these cumulative setting projects to reduce such impacts to a less-than-significant level. Therefore, cumulative impacts to archaeological or paleontological resources are anticipated to be less than significant.

Significance after Mitigation: Less than Significant.

References – Cultural Resources

Anonymous, *A Memorial and biographical history of northern California: Illustrated. Containing a history of this important section of the Pacific coast from the earliest period of its occupancy to the present time, together with glimpses of its prospective future.* The Lewis Publishing Co., Chicago, 1891. Available online at: http://www.calarchives4u.com/history/napa/index.htm. Accessed on July 3, 2008.

Barrett, S.A., The Ethno-Geography of the Pomo and Neighboring Indians. *University of California Publications in American Archaeology and Ethnology* 6(1):1–332. Berkeley, 1908.

City of Napa, Napa Municipal Code. http://qcode.us/codes/napa/view.php?topic=15-15_52-15_52_010&frames=on; accessed online, December 22, 2011.

Heizer, Robert F., and M.A. Whipple, *The California Indians. A Source Book.* University of California Press, Berkeley, 1971.

Jones & Stokes, *Cultural Resources Inventory and Evaluation Report for Napa River Salt Marsh Restoration Project, Napa and Sonoma Counties, California.* Prepared for California State Coastal Conservancy and U.S. Army Corps of Engineers. On file, Napa Sanitation District, 2003.

Kroeber, A.L., *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Smithsonian Institution, Washington, D.C. Reprinted 1976 by Dover, New York, 1925.

Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottfield, Donna Gillette, Vaviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson. Punctuated Culture Change in the San Francisco Bay Area, In *Prehistoric California: Colonization, Culture, and Complexity.* Edited by T.L. Jones and K.A. Klar, pp. 99–124, AltaMira Press. 2007.

Page & Turnbull, 2011. *Downtown Napa Historic Context Statement & Survey Report.* Prepared for the Napa Community Redevelopment Agency. February 2011

Page & Turnbull, 2011. *Downtown Napa Historic Resources Design Guidelines*. Prepared for the Napa Community Redevelopment Agency. March 2011

Sawyer, Jesse O., Wappo. In *California*, edited by Robert F. Heizer, pp.256–263. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C., 1978.

4.E Geology and Soils

This section describes the existing geology, soil conditions, and seismicity in the Planning Area and the state and local regulations that would apply to implementing the Downtown Napa Specific Plan. This includes a description of existing conditions in terms of local topography, geologic substrate, soil resources, and regional seismicity, including local geologic and seismic hazards that could affect structures associated with the Specific Plan. This section also provides an assessment of local geological and seismic conditions that could have an effect on the Specific Plan.

Setting

Regional Setting

Topography

The topography of the Planning Area is relatively flat, gently sloping from west to east toward the Napa River. Elevations range from approximately 30 feet mean sea level (MSL) along Jefferson Street in the west to approximately 15 feet MSL along the Napa River.

Geology

The Planning Area is located within the geologically complex region of California referred to as the Coast Range Geomorphic Province. Much of the Coast Range province is composed of marine sedimentary deposits and volcanic rocks that form northwest trending mountain ridges and valleys, running subparallel to the San Andreas Fault Zone. Bedrock geology in this region consists primarily of graywacke, shale, greenstone (altered volcanic rocks), basalt, chert (ancient silica-rich ocean deposits), and sandstone that originated as ancient sea floor sediments. The Franciscan units are overlain in areas by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields.

The Coast Range Province is divided into a northern and southern half with the San Francisco Bay as the dividing boundary. The San Francisco Bay lies within a broad depression created from an east-west expansion between the San Andreas and the Hayward fault systems. The San Andreas fault zone runs roughly parallel to the Pacific coastline in western Marin County. Napa Valley is a northwest trending valley typical of the Northern Coast Ranges.

Seismicity

The seismic environment in Northern California and the San Francisco Bay Area is characterized by the San Andreas Fault system, which formed due to major forces occurring at the boundary of shifting tectonic plates. This fault system, and its northwest-trending folds and faults, control much of the geologic structure within the northern Coast Ranges. The U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities estimated that there is a

21 percent chance of the northern San Andreas Fault experiencing an earthquake of magnitude 6.7 or greater in the next 30 years (USGS, 2008).

Regional Faults

The San Francisco Bay Area region contains both active and potentially active faults and is considered a region of high seismic activity.[1] Throughout the project area, there is a potential of damage from movement along any one of a number of the active Bay Area faults. The USGS estimates that there is a 63 percent probability of at least one moment magnitude 6.7 or greater earthquake occurring in the San Francisco Bay region over the next 30 years.[2] Among the various active faults in the region, the Hayward-Rodgers Creek and San Andreas fault systems are the two most likely to cause such an event (USGS, 2008).[3]

Figure 4.E-1 depicts active faults in the vicinity of the Planning Area which include the West Napa, Green Valley-Concord, Rodgers Creek, Maacama, and the San Andreas faults. **Table 4.E-1** lists these faults along with other potentially active fault systems, and identifies the dates of their most recent activity and the estimated maximum moment magnitude of a characteristic future event. The distance listed to the various faults represents the shortest distance to the project area. The Rodgers Creek and West Napa faults are the closest faults to the Planning Area.

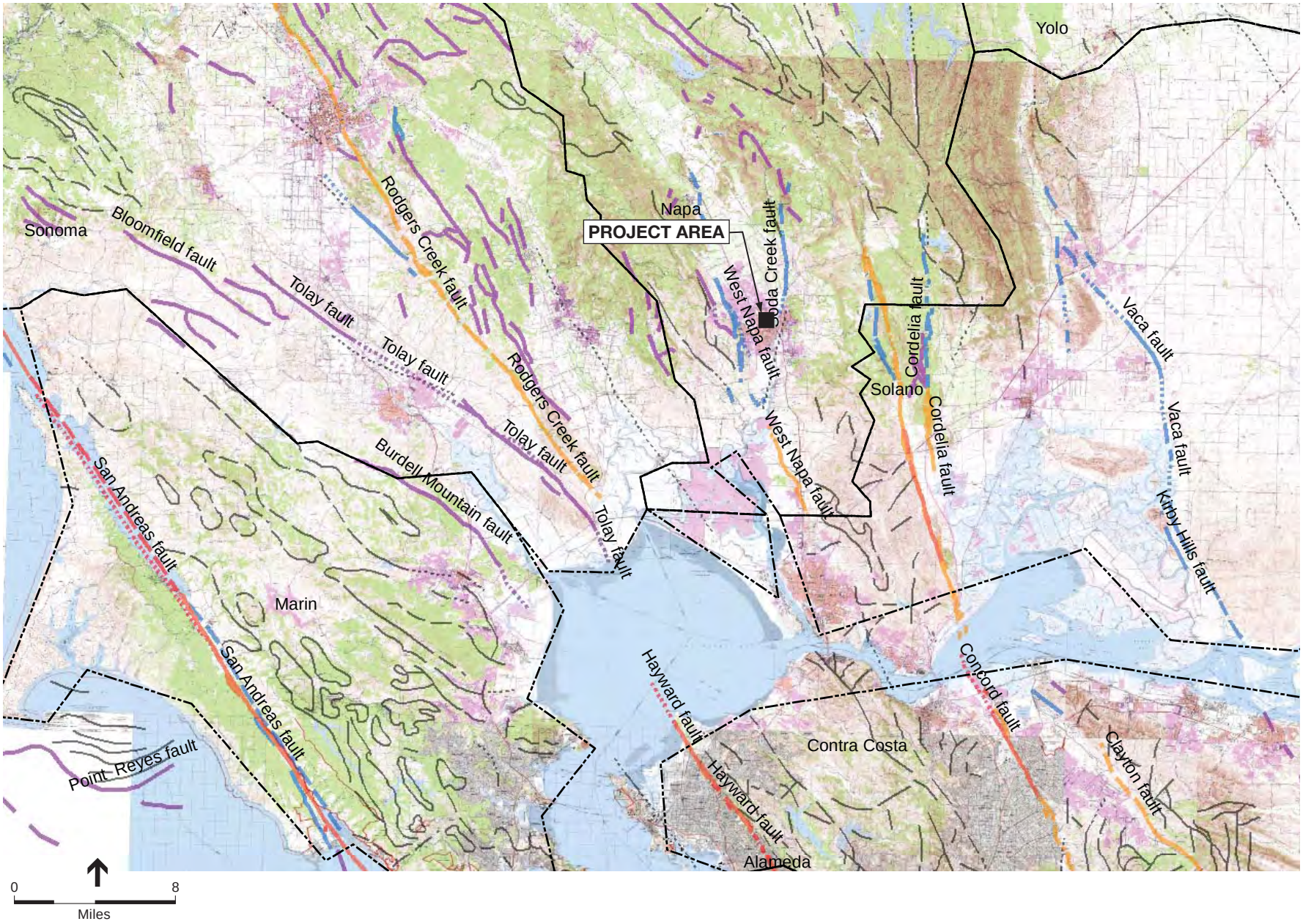
Large historic earthquakes (magnitude 6 and greater) on regional active faults have been responsible for generating significant ground shaking throughout the region, including events on the Rodgers Creek fault (1898, 1969), and the San Andreas (1906, 1989) fault. The Rodgers Creek fault is considered the northern extension of the Hayward fault and is capable of causing significant ground shaking from Vallejo to north of Healdsburg. The most recent significant earthquake on the Rodgers Creek fault occurred in October 1, 1969. On this date, two earthquakes of magnitude 5.6 and 5.7 occurred in an 83-minute period and caused serious damage to buildings in Santa Rosa. The last major earthquake (estimated Richter magnitude 6.7) was generated in 1898 with an epicenter near Mare Island at the north margin of San Pablo Bay. The USGS estimates the probability of a large earthquake (magnitude 6.7 or greater) on the Rodgers Creek fault (when considered together with the Hayward fault) during the period between 2002 and 2032 to be 31 percent (USGS, 2008). The expected ground shaking generated by a seismic event on the Rodgers Creek Fault is anticipated to cause significant damage and interruption of service for transportation (e.g., highways, railroads, and marine facilities) and lifeline (e.g., water supply, communications, and petroleum pipelines) facilities throughout Napa County.

---

1 An "active" fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 11,000 years). A "potentially active" fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not mean that faults lacking evidence of surface displacement are necessarily inactive (Hart and Bryant, 1997).

2 Moment magnitude is related to the physical size of a fault rupture and movement across a fault. The Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave. Moment magnitude provides a physically meaningful measure of the size of a faulting event (California Geological Survey (CGS, 2002).

3 The Rodgers Creek fault is considered to be a northern extension of the Hayward fault which has not been mapped beneath San Pablo Bay.



SOURCE: ESA

Napa Downtown Specific Plan

Figure 4.E-1

Regional Fault Figure

TABLE 4.E-1
ACTIVE AND POTENTIALLY ACTIVE REGIONAL FAULTS IN THE VICINITY OF THE PLANNING AREA

Fault Zone	Location Relative to Project Area	Recency of Faulting[a]	Historical Seismicity[b]	Maximum Moment Magnitude[d]
West Napa	4 Miles Southwest	Holocene –Active	NA	6.5
Green Valley-Concord (includes Cordelia Fault Zone)	6 miles east	Holocene – Active	Active creep[c]	6.9
Rodgers Creek (includes potentially active Healdsburg and Tolay fault zones)	12 Miles Southwest	Historic – Active	M 6.7: 1898 M 5.6, 5.7: 1969	7.0
Hayward	20 miles southwest	Historic – Active	M 6.8: 1868 M 7.0: 1838 Many <M 4.5	6.9
Marsh Creek-Greenville	29 miles southeast	Historic – Active	M 5.6: 1980	6.9
Maacama	30 miles north	Holocene – Active	NA	7.1
San Andreas (Peninsula and Golden Gate segments)	32 miles west	Historic – Active	M 7.1: 1989 M 8.25: 1906 M 7.0: 1838 Many <M 6	7.3

[a] Recency of faulting from Jennings (2010). Historic: displacement during historic time (within last 200 years), including areas of known fault creep; Holocene: evidence of displacement during the last 11,000 years; Quaternary: evidence of displacement during the last 1.6 million years; Pre-Quaternary: no recognized displacement during the last 1.6 million years (but not necessarily inactive).
[b] Richter magnitude (M) and year for recent and/or large events.
[c] Slow fault movement that occurs over time without producing an earthquake.
[d] Maximum moment magnitude from Peterson *et al.* (1996). This is the maximum earthquake moment magnitude which could occur within the specified fault zone.

NA = Not applicable and/or not available.

SOURCES: Jennings, 2010, Hart and Bryant, 1997, and Peterson *et al,.*1996.

Shaking Intensity

While the moment and Richter magnitudes are a measure of the energy released in an earthquake, intensity is a measure of the earthquake ground shaking effects at a particular location. Intensity varies depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material underlying a particular area. The Modified Mercalli Intensity (MMI) scale (**Table 4.E-2**) is commonly used to express the earthquake intensity and damage severity caused by earthquakes because it expresses ground shaking relative to actual physical effects observed by people and therefore is a useful scale for comparing different seismic events. MMI values range from I (earthquake not felt) to XII (damage nearly total). Earthquakes on the various active and potentially active San Francisco Bay Area fault systems can produce a wide range of ground shaking intensities within the project area.

The closest active faults to the Planning Area are the West Napa and the Green Valley-Concord faults. The West Napa fault is located east of the Napa River and trends northwest across the Napa County Airport. The Rodgers Creek fault zone is the southern segment of a fracture zone

TABLE 4.E-2
MODIFIED MERCALLI SCALE (ABRIDGED)

Intensity Value	Intensity Description	Average Peak Acceleration[a]
I	Not felt except by a very few persons under especially favorable circumstances.	< 0.0017 g
II	Felt only by a few persons at rest, especially on upper floors on buildings. Delicately suspended objects may swing.	< 0.014 g
III	Felt quite noticeably indoors; especially on upper floors of buildings, but many people do not recognize it as an earthquake.	< 0.014 g
IV	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound.	0.014–0.039 g
V	Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned.	0.039–0.092 g
VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; minor fallen plaster or damaged chimneys. Damage slight.	0.092–0.18 g
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken.	0.18–0.34 g
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls.	0.34–0.65 g
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse.	0.65–1.24 g
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	> 1.24 g
XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 1.24 g
XII	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 1.24 g

[a] g is gravity = 980 centimeters per second squared. Acceleration is scaled against acceleration due to gravity or the acceleration with which a ball falls if released at rest in a vacuum (1.0 g). Acceleration of 1.0 g is equivalent to a car traveling 100 meters (328 feet) from rest in 4.5 seconds.

SOURCE: CGS, 2003.

that includes the Rodgers Creek fault (north of San Pablo Bay) and the Healdsburg fault (northern Sonoma County). The most recent significant earthquakes on the Rodgers Creek fault both occurred on October 1, 1969. On this date, two earthquakes of Richter magnitude 5.6 and 5.7 occurred within an 83-minute period. Buildings in Santa Rosa sustained serious damage during these quakes, and the earthquakes were felt as far away as Sacramento. Prior to these events, the last major earthquake (estimated Richter magnitude 6.7) was generated in 1898 with an epicenter near Mare Island at the north margin of San Pablo Bay (see Table 3.1-2). The Green Valley-Concord fault extends from Walnut Creek north to Wooden Valley (east of Napa Valley).

Historical records indicate that no large earthquakes have occurred on the Concord or Green Valley Faults (USGS, 2003). However, a moderate earthquake of magnitude M5.4 occurred on the Concord fault segment in 1955. The Concord and Green Valley Faults exhibit active fault creep and are considered to have a small probability of causing a significant earthquake.

Seismic Ground Shaking

Strong ground shaking from earthquakes generated by active faults in the Bay Area is a hazard to the project area. During project operation, it is likely that at least one moderate to severe earthquake will cause strong ground shaking within the project vicinity. Ground shaking intensity is related to the size (i.e., magnitude) of an earthquake, the distance from the epicenter to the project's location, and the response of the geologic materials that underlie the site. As a rule, the greater the earthquake magnitude and the closer the fault rupture to the site, the greater the intensity of ground shaking. Violent shaking is generally expected at and near the epicenter of a large earthquake, although studies of recent earthquakes, such as those conducted after the 1992 Landers earthquake, indicate that directional ground motion along a fault can cause strong ground shaking farther away from the epicenter. Seismic hazards due to ground shaking can cause the greatest amounts of damage to structures and utilities and unsecured equipment.

The composition of underlying soils can be a primary determining factor of ground shaking because loose or soft alluvial sediments or fill, even those relatively distant from earthquake epicenters, can intensify ground shaking. Non-engineered artificial fill, if present, could intensify ground shaking effects in the event of an earthquake on one of the aforementioned faults. Areas directly underlain by bedrock would likely experience less-severe ground shaking due to the ability of the bedrock to attenuate seismic waves.

Strong ground shaking or ground motion is described as motion of sufficient strength to affect people and their environment. The common way to describe ground motion during an earthquake is with the motion parameters of acceleration and velocity in addition to the duration of the shaking. A common measure of ground motion is the peak ground acceleration (PGA), which is the largest value of horizontal acceleration obtained from a seismograph. PGA is expressed as the percentage of the acceleration due to gravity (g) which is approximately 980 centimeters per second squared. In terms of automobile accelerations, one "g" of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from a stopped position in 4.5 seconds. For comparison purposes, the maximum PGA value recorded during the Loma Prieta earthquake of 1989 was in the vicinity of the epicenter, near Santa Cruz, at 0.64 g.

Geologists and engineers attempt to predict earthquake ground acceleration at sites to improve the structural design of buildings and underground utilities to enable them to withstand earthquake motion. A probabilistic seismic hazard assessment describes seismic hazard from earthquakes that geologists and seismologists agree could occur. It is "probabilistic" in that the analysis takes into consideration the uncertainties in the size and location of earthquakes and the resulting ground motions that can affect a particular site. The results of probabilistic analyses are typically more realistic because it accounts for the full range of possible earthquakes, their location, frequency of occurrence, size, and the propagation of the earthquake motion from the rupture zone to the site

of interest; the results take into account certainty in the vulnerability of structures. The fundamental difference between deterministic and probabilistic analyses is that deterministic analyses do not consider the probability associated with the earthquake hazard.

In 1999, the California Geological Survey (CGS) completed the Seismic Shaking Hazard Maps for California to describe the statewide distribution of estimated ground motion throughout the state. These maps provide a conservative estimate, through probabilistic analysis, of the peak ground acceleration for all regions of California. Based on estimates of this seismic hazards assessment, the PGA in the region of the Planning Area could reach or exceed 0.45 g (1 chance in 475 of being exceeded each year) (CGS, 2009; Petersen *et al.*, 1996). Seismic ground shaking is discussed further in the impacts analysis below.

Potential Geologic / Seismic Hazards

The Planning Area could experience the effects of a major earthquake from one of the active or potentially active faults located within 100 miles of the project area. The four major hazards associated with earthquakes are fault surface rupture (ground displacement), ground motion (or ground shaking, discussed above), ground failure (e.g., liquefaction), and differential settlement. Considering the geologic context of the Planning Area and nature of potential development under the Specific Plan, the typical geologic hazards could include slope instability, soil erosion, settlement, and the potential to encounter expansive and/or corrosive soil materials. These hazards are discussed briefly below and provide the initial context for further evaluation in the impact analysis.

Seismic Hazards

Surface Fault Rupture. Surface fault rupture typically is observed, and is expected, on or within close proximity to the causative fault trace.[4] The West Napa and Green Valley-Concord fault zones are the closest active faults to the project area zoned under the Alquist-Priolo Earthquake Fault Zoning Act. As indicated above, neither of these faults transect the Planning Area and no other active faults have been mapped within or relatively close to the Planning Area. Surface fault rupture would not necessarily be limited to the boundaries of these Alquist-Priolo Fault Zones, however the risk of surface rupture miles outside of these zones would be considered very low. Therefore, there is very low risk of surface fault rupture within the Planning Area.

Liquefaction. Liquefaction is the sudden temporary loss of shear strength in saturated, loose to medium dense, granular sediments subjected to ground shaking. Liquefaction generally occurs when seismically-induced ground shaking causes pore water pressure to increase to a point equal to the overburden pressure. Liquefaction can cause foundation failure of buildings and other facilities due to the reduction of foundation bearing strength. The potential for liquefaction depends on the duration and intensity of earthquake shaking, particle size distribution of the soil, density of the soil, and elevation of the groundwater. Areas at risk due to the effects of liquefaction are typified by a high groundwater table and underlying loose to medium-dense,

[4] Fault rupture is displacement at the earth's surface resulting from fault movement associated with an earthquake.

granular sediments, particularly younger alluvium and artificial fill. Liquefaction hazard maps compiled for the Bay Area Region by the Association of Bay Area Governments indicate that there is a range of liquefaction from low to very high within the Planning Area (ABAG, 2009). In general, areas closer to Napa River have a higher potential for liquefaction.

Earthquake-Induced Settlement. Settlement of the ground surface can be accelerated and accentuated by earthquakes. During an earthquake, settlement can occur as a result of the relatively rapid compaction and settling of subsurface materials (particularly loose, non-compacted, and variable sandy sediments) due to the rearrangement of soil particles during prolonged ground shaking. Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). Typically, areas underlain by artificial fills, unconsolidated alluvial sediments, slope wash, and areas with improperly engineered construction fills are susceptible to this type of settlement. In recognition of the variability of underlying material in the Planning Area, earthquake-induced settlement is discussed further under the impacts analysis below.

Other Geologic Hazards

Slope Instability and Landslides. Slope failures, commonly referred to as landslides, include many phenomena that involve the downslope displacement and movement of material, either triggered by static (i.e., gravity) or dynamic (i.e., earthquake) forces. Rock slopes exposed to either air or water can undergo rockfalls, rockslides, or rock avalanches, while soil slopes experience shallow soil slides, rapid debris flows, and/or deep-seated rotational slides. The Planning Area is generally relatively level with not much of a potential for slope instability issues or landslides. According to mapping provided in the City of Napa General Plan, the Planning Area is located entirely within an area considered to have the least susceptibility for landslides (Napa, 2009).

Soil Erosion. Erosion is the wearing away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind and underground water. Excessive soil erosion can eventually lead to damage of building foundations and roadways. The Planning Area is currently largely developed or vegetated and soils susceptible to erosion would be those exposed during the construction phase and along the river banks where soil is subjected to water action. Typically, the soil erosion potential is reduced once the soil is graded and covered with concrete, structures, asphalt, or slope protection.

Settlement. Settlement is the depression of the bearing soil when a load, such as that of a building or new fill material, is placed upon it. The process whereby soil materials settle at varying rates depending on the load weight is referred to as differential settlement. Differential settlement can be a greater hazard than total settlement if there are variations in the thickness of previous and new fills or natural variations in the thickness and compressibility of soils across a building footprint. Settlement commonly occurs as a result of building construction or other large projects that involve soil stockpiling. The Specific Plan would facilitate the construction of new structures and redevelopment of existing buildings which could introduce new loads thereby resulting in the potential for settlement.

Expansive Soils. Expansive soils are characterized by a shrink-swell characteristic. "Shrink-swell" is the cyclical expansion and contraction that occurs in fine-grained clay sediments from wetting and drying. Structures located on soils with this characteristic may be damaged over a long period of time, usually as the result of inadequate foundation engineering. Structural damage may result over a long period of time, usually resulting from inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Expansive soils are typically comprised of clays, which expand in volume when water is absorbed and shrink when dried. Soil materials vary within the Planning Area and only site specific testing could identify the presence of expansive soils. However; it is very likely that some expansive soils may be present.

Soils

The Soil Survey prepared by the Natural Resources Conservation Service identifies a variety of soil units within the downtown portion of Napa. The more prominent units include the Cole silt loam series on slopes of zero to 5 percent and the Bale clay loam on slopes of zero to 2 percent (USDA, 2009). These two units comprise the majority of the Planning Area, however other units present include the Egbert silty clay loam, the Hambright-Rock outcrop complex, and the Yolo loam. In general, the soil resource base has varying hazards of erosion from water and varying potential for shrink-swell behavior. These soil units are derived from alluvium sources with the exception of the rock outcrop, however the bedrock unit represents a small fraction of the Planning Area.

Regulatory Setting

California Building Code

The California Building Code (CBC) has been codified in the California Code of Regulations (CCR) as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. The CBC is based on the International Building Code. The 2010 CBC is based on the 2009 International Building Code (IBC) published by the International Code Conference. In addition, the CBC contains necessary California amendments which are based on reference standards obtained from various technical committees and organizations such as the American Society of Civil Engineers (ASCE), the American Institute of Steel Construction (AISC), and the American Concrete Institute (ACI). ASCE Minimum Design Standards 7-05 provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (flood, snow, wind, etc.) for inclusion into building codes. The provisions of the CBC apply to the construction, alteration,

movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients which are used to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site and ranges from SDC A (very small seismic vulnerability) to SDC E (very high seismic vulnerability and near a major fault). Design specifications are then determined according to the SDC.

CCR Title 24 also includes the California Residential Code (based on the 2009 International Residential Code) and the California Green Building Code, which have been adopted as separate documents (CCR Title 24, Part 2.5 and 11, respectively). The California Residential Code includes structural design standards for residential one and two family dwellings and covers all structural requirements for conventional construction. All other structures including multi-family residential projects are found in the CBC.

City of Napa Building Division

The Building Division is responsible for the enforcement of minimum building standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use occupancy and location of all buildings and structures within the jurisdiction of the City of Napa.

City of Napa General Plan

The City of Napa General Plan 2020 contains a *Health and Safety Element* containing policies that relate to seismic safety, erosion, and landslide hazards. In addition to identifying and assessing known conditions and seismic hazards, the City's General Plan lays out goals with corresponding policies. These goals are listed below with an example of some of the policies the County has adopted to reduce injury and damage from earthquakes.

Goal HS-1: To minimize the risk to life and property from seismic activity.

> ***Policy HS-1.1.*** The City shall require that all new buildings be designed and constructed to resist stresses produced by earthquakes. To this end, the City shall require all new buildings to conform to the structural requirements of the most recently adopted edition of the *Uniform Building Code (the Uniform Building Code was replaced by the International Building Code in 2000. As noted above, the California Building Code [CBC] is based on the IBC).*
>
> ***Policy HS-1.2.*** The City shall discourage the siting of facilities necessary for emergency services, major utility lines and facilities, manufacturing plants using or storing hazardous materials, high occupancy structures (such as multi-family residences and large public assembly facilities), or facilities housing dependent populations (such as schools and convalescent centers) within areas subject to very strong, violent, or very violent ground shaking, as indicated in the ABAG

Groundshaking Intensity Maps (Figure 8-1-A and B), unless no alternative is available and adequate mitigation measures can be incorporated into the project.

Policy HS-1.3. The City shall require soils and geologic studies for proposed development with large client populations (such as schools and convalescent centers) within areas subject to very strong, violent, or very violent ground shaking, as indicated in the ABAG Shaking Intensity Map. Such studies should determine the actual extent of the seismic hazards, optimum location for structures, the advisability of special structural requirements, and the feasibility and desirability of a proposed facility in a specified location. Mitigation measures shall be incorporated as conditions of any project approval.

Policy HS-1.4. The City shall require special construction features in the design of structures where site investigations confirm potential seismic hazards.

Policy HS-1.5. The City shall require that facilities necessary for emergency services be capable of withstanding a maximum credible earthquake from any of the seven active faults in the region and remaining operational to provide emergency response.

Policy HS-1.6. The City shall encourage the study and rehabilitation of high occupancy structures (such as multi-family residences and large public assembly facilities) susceptible to collapse or failure in an earthquake.

Goal HS-2: To minimize the hazards to people and property caused by soil erosion and landslides.

Policy HS-2.1. The City shall seek to minimize grading and impermeable surfaces in high-erosion areas. If grading or impermeable surfaces are necessary, they shall be properly engineered and drained to reduce runoff and erosion.

Policy HS-2.2. The City shall consider natural landform contours and geologic conditions in the development of roadways and individual project design.

Policy HS-2.3. The City shall continue to regulate development on hillsides to reduce the hazards posed by soil erosion and landslides.

Policy HS-2.4. The City shall require that an erosion control plan be prepared and approved for development on slopes of 15 percent or greater. The plan should include limitations on vegetation removal, revegetation, and installation of other erosion and sedimentation control measures.

Impacts and Mitigation Measures

Significance Criteria

Consistent with CEQA *Guidelines* Appendix G (Environmental Checklist) the project could have a significant impact if it would:

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.)

ii. Strong seismic ground shaking?

iii. Seismic-related ground failure, including liquefaction?

iv. Landslides?

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

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

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?

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?

Approach to Analysis

This following impact analysis focuses on potential impacts of the proposed project related to seismicity and other geologic hazards. The evaluation considered potential development under the Specific Plan, current conditions within the Planning Area, and applicable regulations and guidelines. Some of the above CEQA criteria are not considered relevant to the Specific Plan based upon the program level analysis of this EIR, the geographic context of the Planning Area, and data research. These criteria would have no impact, and therefore, they will not be evaluated further in this EIR. These criteria are:

- *Criteria a.i – Fault Rupture.* The faults most susceptible to earthquake rupture are active faults, which are faults that have experienced surface displacement within the last 11,000 years. There are no active faults that cross the Planning Area, and the nearest active fault (West Napa) is at least four miles away. Therefore, the potential for fault rupture to affect the Planning Area is very low.

- *Criteria a.iv – Landslides.* The Planning Area contains slopes that are less than 15 percent in grade and not considered susceptible to landslides or slope failure (Napa, 2009). The gentle sloping topography of the area puts the potential for landslides or slope failure to affect any of the proposed development or redevelopment in the Planning Area very low and is therefore not discussed further.

- *Criteria e – Wastewater Disposal.* The Planning Area is located within an urban area where all development would be able to tie into existing wastewater infrastructure. Therefore, none of the development or redevelopment will require the use of septic or other alternative disposal wastewater systems, and therefore no impact associated with this hazard.

Impacts and Mitigation Measures

Excavation, Grading, and Construction Impacts

Impact 4.E-1: Development facilitated by the Specific Plan could potentially involve grading and other ground-disturbing construction activities, which could expose soils to erosion and loss of topsoil. (Less than Significant)

The Planning Area is currently largely developed with a majority of the land area covered by impervious surface such as asphalt, buildings, and concrete. The pervious areas are generally landscaped and vegetated. However, development under the Specific Plan could require removing the existing soil cover and thereby exposing underlying soils to the effects of wind and water. The relatively flat topography of the Planning Area significantly reduces the potential for erosion and loss of topsoil during construction activities. Nonetheless, areas of the Planning Area subject to concentrated runoff, or areas of unprotected slopes or piles of bare soil, would still pose erosion hazards if left unmitigated. Once covered by asphalt, a new structure, or vegetated at the conclusion of construction, the potential for erosion is significantly reduced.

Protection of soils during construction can generally be achieved through well established erosion control measures. Every construction project in the State of California that causes a disturbance of one acre or more of soil through grading, clearing, and or excavation is subject to the General Construction Stormwater Permit (General Construction Permit), also referred to as the General Permit, adopted by the State Water Resources Control Board (SWRCB). In order to complete the General Permit application, the applicant must first submit a Notice of Intent (NOI) to obtain coverage under the General Permit. This General Permit requires dischargers to develop and implement a Storm Water Pollution Prevention Plan (SWPPP), which specifies the Best Management Practices (BMPs) that would prevent construction pollutants, including sediment, from reaching storm drains, with the intent of keeping all products of erosion from moving off-site into receiving waters. Furthermore, the SWPPP would also include BMPs to control erosion associated with grading, trenching, and other ground surface-disturbing activities (See also discussion of SWPPP in Section 4.G, *Hydrology and Water Quality*). As a condition of the permits required for the project, which would require compliance with the requirements of the General Permit, impacts from construction would be less than significant.

Mitigation: None Required.

Operation

Impact 4.E-2: In the event of a major earthquake in the region, ground shaking and associated secondary effects, such as localized liquefaction, could potentially cause damage, destruction or injury to development and persons resulting from development facilitated by the Specific Plan. (Less than Significant)

According to modeling conducted by the US Geological Survey in conjunction with the California Geological Survey, the San Francisco Bay Area would likely experience at least one

major earthquake with a greater than moment magnitude 6.7 within the next 30 years. The intensity of such an event would depend on the causative fault and the distance to the epicenter, the magnitude, the duration of shaking, and the characteristics of the underlying geologic materials. The potential for damage or loss during an earthquake of this magnitude is considered a potentially significant impact.

In general, ground shaking tends to be more severe in softer sediments such as alluvial deposits, where surface waves can be amplified causing a longer duration of ground shaking compared to bedrock materials. An area where bedrock is exposed or located relatively shallow tends to experience surface waves from an earthquake as more of a sharp jolt. As discussed above in the setting, groundshaking in the Planning Area has a 1 in 475 chance of exceeding 0.45g each year. Groundshaking of this magnitude could cause significant damage in structures that are not adequately engineered.

Liquefaction typically occurs in areas underlain with loose, saturated, cohesionless soils within the upper 50 feet of subsurface materials. These soils, when subjected to groundshaking, can lose their strength resulting from the buildup of excess pore water pressure causing them to behave closer to a liquidified state. In general, liquefaction susceptibility in the Planning Area varies widely and areas such as those located closer to the Napa River could be prone to liquefaction hazards. Unreinforced masonry buildings and other buildings constructed prior to the 1930s that have not undergone seismic upgrades would be expected to incur the greatest structural damage. Damage from earthquake-induced ground failure could be high in buildings constructed on improperly engineered fills or saturated alluvial sediments that have not received adequate compaction or treatment.

For new construction, all of the aforementioned seismic hazards can be minimized through the application of current industry standard geotechnical practices and seismic structural design according to the requirements found in the most recent version of the California Building Code, which includes or exceeds the requirements of the Uniform Building Code or International Building Code. After decades of study of past earthquakes and the performance of structures and other improvements, building codes have incorporated measures to reduce the potential for catastrophic damage to occur in buildings, roadways, and utility connections.

A number of policies and objectives found in the City of Napa General Plan would help ensure that any new development would be built to standards that reduce their risk from seismic hazards. They include Policies HS-1.1 through HS-1.6 (listed above in the Regulatory Framework section), which generally restricts development in areas of high hazards as determined by required geotechnical investigations unless special construction features are incorporated into the design. Although damage and injury cannot be completely avoided during a significant seismic event, policies outlined in the in the General Plan and those required by the City of Napa Building Division which has adopted the California Building Code would reduce the potential damage and personal injury. Therefore this would be a less than significant impact.

Mitigation: None Required.

Impact 4.E-3: Development facilitated by the Specific Plan could potentially be subjected to geologic hazards, including expansive soils, settlement, and differential settlement. (Less than Significant)

As discussed in the Setting, the geologic materials and settings within the Planning Area vary widely and may contain geologic hazards such as expansive soils, compressible native and/or fill materials, and differential settlement. Exposure to one or more of these geologic hazards could cause significant damage to the foundation of structures if not engineered appropriately.

Typically, soils that exhibit expansive characteristics are found within the upper five feet of ground surface. Over a long-term exposure to wetting and drying cycles, expansive soils can experience volumetric changes. The effects of expansive soils could damage foundations of above-ground structures, paved roads and streets, and concrete slabs. Expansion and contraction of soils, depending on the season and the amount of surface water infiltration, could exert enough pressure on structures to result in cracking, settlement, and uplift.

Differential settlement could occur throughout the Planning Area where the engineering characteristics of underlying materials vary over an area proposed for new loading. Materials most susceptible to settlement would be undocumented fill materials that did not receive adequate compaction or loose unconsolidated alluvial or floodplain deposits. Differential settlement could damage building foundations and roads, and could affect underground utilities. Settlement would be a concern in redevelopment areas that have not previously supported structures and where new structures would place loads heavier than the soils could tolerate.

Policies found in the City of Napa General Plan would help ensure that any new development would be built to standards that reduce their risk from geologic hazards such as unstable soils and erosion. Policy HS-1.3 combined with the building code requirements made by the Building Division would require detailed investigation of subsurface materials and their engineering characteristics. These geotechnical investigations would consider proposed plans and evaluate potential hazards and provide recommendations to mitigate them. Current geotechnical engineering practices have incorporated effective mitigations in accordance with building code requirements to reduce potential damage and personal injury from geologic hazards by ensuring that industry standard controls are implemented in any future development. Therefore, this would be a less than significant impact.

Mitigation: None Required.

Cumulative Impact

Impact 4.E-4: Development facilitated by the Specific Plan, combined with other past, present, existing, approved, pending, and reasonably foreseeable future development in the surrounding region, could potentially result in cumulative impacts to geologic and seismic hazards. (Less than Significant)

The Specific Plan, combined with other present and foreseeable development in the area, might result in increased population and development in a region susceptible to seismic risks and hazards. While the number of people visiting, living and working in the area might increase incrementally, exposing additional people to seismic and geologic hazards, the risk to people and property would be reduced through the upgrading or demolishing of older buildings that were constructed under less stringent building code requirements. Older buildings would be seismically retrofitted and newer buildings would be constructed to stricter building codes. Implementation of the proposed Specific Plan in accordance with the policies of the City of Napa General Plan, in addition to the provisions of the California Building Code, would reduce the potential hazards associated with seismic ground shaking and ground failure. Other current and future development/redevelopment projects in the region would similarly be required to adhere to standards and practices that include stringent geologic and seismic hazard mitigations. With implementation of these required building standards, the impacts of geologic hazards and seismic ground shaking would be reduced to less than cumulatively considerable for new development and redevelopment consistent with the proposed Specific Plan.

Mitigation: None Required.

References – Geology and Soils

Association of Bay Area Governments (ABAG), *Liquefaction Susceptibility* http://www.abag.ca.gov/bayarea/eqmaps/liquefac/liquefac.html, compiled by ABAG from US Geological Survey Report 00-444, accessed March 24, 2009.

California Geological Survey (CGS), Background Information on the Shake Maps. Available online at http://quake.usgs.gov/research/strongmotion/effects/shake/about.html, 2003.

California Geological Survey, *Probabilistic Seismic Hazards Ground Motion Page*, http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamap.asp, for Longitude -122.28867 and Latitude 38.29874, accessed, March 24, 2009.

Hart, E.W., *Fault Rupture Hazard Zones in California: Alquist-Priolo Special Studies Zones Act of 1972 with Index to Special Studies Zone Maps*. California Division of Mines and Geology, Special Publication 42, 1990. revised and updated 1997.

Jennings, C.W. and Bryant, W.A., compilers, California Geological Survey (CGS), 2010 Fault Activity Map of California, CGS Geologic Data Map No. 6, also available online http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html, 2010

Napa, City of, *Envision Napa 2020, City of Napa General Plan*, adopted December 1, 1998 with amendments incorporated in September 2009.

Peterson, M.D., Bryant, W.A., Cramer, C.H., *Probabilistic Seismic Hazard Assessment for the State of California*, California Division of Mines and Geology Open-File Report issued jointly with United States. Geological Survey, CDMG 96-08 and USGS 96-706, 1996.

United States Department of Agriculture (USDA), *Web Soil Survey, Napa County* http://websoilsurvey.nrcs.usda.gov/app/, accessed March 25, 2009.

United States Geological Survey (USGS) Working Group on California Earthquake Probabilities (WG07), Fact Sheet 2008-3027, *Forecasting California's Earthquakes – What Can We Expect in the Next 30 Years?*, http://pubs.usgs.gov/fs/2008/3027/fs2008-3027.pdf, 2008.

United States Geological Survey (USGS) Working Group on California Earthquake Probabilities (WG02), Open File Report 03-214, *Earthquake Probabilities in the San Francisco Bay Region: 2002-2031*, http://pubs.usgs.gov/of/2003/of03-214/, 2003.

4.F Hazards and Hazardous Materials

This section describes the existing setting related to hazards and hazardous materials based on the current conditions, a regulatory database search for the project area, and the federal, state, and local regulations related to hazardous materials that would apply to the proposed Specific Plan. This section also analyzes potential impacts related to hazards and hazardous materials use, storage, transport, and release, that could occur with implementation of the Specific Plan.

Setting

Background

Materials and waste may be considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.[1] In some cases, past industrial or commercial uses on a site can result in spills or leaks of hazardous materials and petroleum to the ground, resulting in soil and groundwater contamination. Federal and state laws require that soils and groundwater having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain acceptable levels must be handled and disposed as hazardous waste during excavation, transportation, and disposal. The California Code of Regulations (CCR), Title 22, §66261.20–24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste. The use of hazardous materials and disposal of hazardous wastes are subject to numerous laws and regulations at all levels of government (see Regulatory Framework below).

Hazardous Building Materials

Development and redevelopment projects often involve the need to demolish existing older structures. Many older buildings contain building materials that consist of hazardous materials, which can be hazardous to people and the environment once disturbed. These materials include lead-based paint, asbestos-containing materials (ACM), and polychlorinated biphenyls (PCBs).

Prior to the EPA ban in 1978, lead-based paint was commonly used on interior and exterior surfaces of buildings. Through such disturbances as sanding and scraping activities, or renovation work, or gradual wear and tear, old peeling paint, or paint dust particulates have been found to contaminate surface soils or cause lead dust to migrate and affect indoor air quality. Exposure to residual lead can cause severe adverse health effects especially in children.

Asbestos is a naturally occurring fibrous material that was extensively used as a fireproofing and insulating agent in building construction materials before such uses were banned by the U.S. Environmental Protection Agency (USEPA) in the 1970s. Asbestos-containing materials were

1 State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

commonly used for insulation of heating ducts as well as ceiling and floor tiles to name a few typical types of materials. Similar to lead-based paint, contained within the building materials asbestos fibers present no significant health risk, but once these tiny fibers are disturbed, they become airborne and become a respiratory hazard. The fibers are very small and cannot be seen with the naked eye. Once they are inhaled, they can become lodged into the lung potentially causing lung disease or other pulmonary complications.

PCBs are organic oils that were formerly used primarily as insulators in many types of electrical equipment including transformers and capacitors. After PCBs were determined to be a carcinogen in the mid to late1970s, the USEPA banned PCB use in most new equipment and began a program to phase out certain existing PCB-containing equipment. Fluorescent lighting ballasts manufactured after January 1, 1978, do not contain PCBs and are required to have a label clearly stating that PCBs are not present in the unit.

Local Setting

Land use within the Planning Area is a mix of commercial, retail, and light industrial use. Commercial and light industrial operations have the potential to release hazardous materials to soil and groundwater within the Planning Area. Potential sources include gasoline service stations and industries that use solvents or other hazardous materials. Residential land use can also result in the release of hazardous materials.

A regulatory database search of existing sites within and immediately adjacent to the Planning Area was conducted for the purpose of this analysis (DTSC and SWRCB, 2011). The limited buffer was chosen based on professional judgment considering the general use of hazardous materials in the Planning Area and the size of the Planning Area. The database search involved a search of the Department of Toxic Substances Control (EnviroStor) and State Water Resources Control Board (GeoTracker) environmental databases for sites with documented use, storage, or release of hazardous materials or petroleum products. The databases identified sites that have had reported releases of hazardous materials or waste including active contaminated sites that are currently under assessment and/or remediation. Some of the sites found on these databases include facilities or sites that are closed because the contamination levels were found to be below regulatory thresholds requiring remediation or remediation has satisfied the regulatory agency overseeing the effort.

The GeoTracker database includes sites found on the Spills, Leaks, Investigations, and Cleanups (SLIC) program as well as the Leaking Underground Fuel Tank (LUFT) program, both of which are overseen by the Regional Water Quality Control Board (RWQCB). The GeoTracker search results indicated a total of five SLIC sites and 22 LUFT sites within the Planning Area. Of the five SLIC sites, only three of the sites or cases were open and are summarized below (SWRCB, 2011):

- Inn at the Town Center, 1400 First Street: A gasoline release was reported at this site in February 2002. Some remediation efforts have occurred at the site including excavation and offsite disposal in September 2007. A corrective action report was submitted on November

30, 2007. The last entry in the database includes a site visit for sampling and verification on June 19, 2008. The current status of the site is open during verification monitoring as of January 28, 2009.

- Dow Cleaners, 1634 Clay Street: A leak of tetracholorethylene (PCE), a common solvent used in dry cleaning operations, was discovered in June 2002. Since that time, the site has had several soil and groundwater site investigation reports submitted and a risk assessment report. The most recent entry in the database record shows conditional approval by the RWQCB of a soil gas survey work plan in June 2010.

- Mr. Howard Nunn, 826-828 Brown Street: This database record provides little information other than the current status is shown as an open site assessment and has been inactive as of April 2009.

Among the 22 LUFT sites, the majority of the sites or cases have been closed and only three remain open (note description of a fourth site below). A summary of the open cases are provided below:

- Valley Auto Repair, 1046 McKinstry Street: A leak of diesel, gasoline, and waste oils (including potentially motor oil, hydraulic oil and lubricating oils) was discovered on April 20, 2006. Remediation was recorded for the site on July 14, 2006. A request for closure of the site was submitted in February 2009; however, the RWQCB determined there was insufficient data to grant this request. The current status of the site is open site assessment. However, according to a response on November 2010, the County concurs with the consultant that, following another round of verification monitoring, the case may be considered for low risk case closure.

- Napa Mill Hatt Building, 550 Main Street: A gasoline leak was reported in 1987 and reportedly stopped in 1989 according to the database. An enforcement order letter was noted in 2004 indicating a potential need to conduct further site assessment or remediation work. An investigation report was submitted and reviewed by the County in October 2010, which indicated that benzene in particular is a concern at the site. The County has requested that further investigation activities and monitoring be conducted at the site.

- Parking Garage, 1401 Clay Street: A gasoline leak was discovered in November 2006, and soil and groundwater investigation was implemented following that date. Groundwater monitoring wells were installed and the results of quarterly sampling of the groundwater has been reported. The current status of the site shows that it is open and in the assessment phase as of October 22, 2007. A letter from the RWQCB in February 2011 indicates that an extension to submit a technical report was granted and due in May 2011.

In addition, the Napa River/Flood Protection Program located at 1001 Second Street was also listed in the database as an open LUFT site as a land disposal site. No contaminants, affected media or other data was found in this record other than an entry of remediation along with the date of March 24, 2009. No Superfund sites, State Response Sites, Voluntary Cleanup Sites, or School Cleanup sites are located within the Planning Area according to the Envirostor database (DTSC, 2011). In addition, there were no military evaluations or DTSC corrective actions located within the Planning Area.

Regulatory Setting

Hazardous Materials and Waste Handling

The California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. These laws require hazardous materials users to prepare written plans, such as Hazard Communication Plans and Hazardous Materials Business Plans. Laws and regulations require hazardous materials users to store these materials appropriately and to train employees to manage them safely. A number of agencies participate in enforcing hazardous materials management requirements, including DTSC, the Regional Water Quality Control Board (RWQCB) and the Napa County Department of Environmental Management (DEM).

Throughout Napa County, a Hazardous Materials Management Plan must be prepared and submitted to the County by businesses that use or store certain quantities of hazardous materials. The Federal Resource Conservation and Recovery Act of 1976 (RCRA) established a "cradle-to-grave" regulatory program for governing the generation, transportation, treatment, storage and disposal of hazardous waste. Under RCRA, individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as Federal RCRA requirements. In California, the DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous material waste. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Hazardous Materials Transportation

The United States Department of Transportation regulates hazardous materials transportation on all interstate roads. Within California, the state agencies with primary responsibility for enforcing federal and state regulations and for responding to transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications. Although special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

Soil and Groundwater Contamination

In Napa County, remediation of contaminated sites is generally performed under the oversight of DTSC, the RWQCB, and/or the DEM. At sites where contamination is suspected or known to occur, the project sponsor is required to perform a site investigation and draw up a remediation plan, if necessary. For typical development projects, site remediation is completed either before or during the construction phase of the project.

Underground Storage Tanks

State laws governing USTs specify requirements for permitting, monitoring, closure, and cleanup. Regulations set forth construction and monitoring standards for existing tanks, release reporting requirements, and closure requirements. Generally speaking, the DEM is the local agency designated to permit and inspect USTs and to implement applicable regulations. A closure plan for each UST to be removed must be prepared and submitted to the County prior to tank removal. Upon approval of the UST closure plan by the County, the Napa Fire Department would oversee UST removal and the subsequent collection of subsurface soil samples from beneath a removed UST.

Worker Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. The California Division of Occupational Safety and Health (Cal OSHA) and the federal Occupational Safety and Health Administration are the agencies responsible for ensuring worker safety in the workplace.

Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. At sites known to be contaminated, a Site Safety Plan must be prepared to protect workers. The Site Safety Plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES), which coordinates the responses of other agencies, including Cal EPA, CHP, the Department of Fish and Game, the RWQCB, and the local fire department. The City of Napa Fire Department provides first response capabilities, if needed, for hazardous materials emergencies within the city.

Structural and Building Components

Asbestos-Containing Materials

Similar to federal laws, state laws and regulations also pertain to building materials containing asbestos. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making friable (easily crumbled) materials a respiratory health threat. These existing laws and regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local governmental agencies prior to beginning renovation or demolition that could disturb asbestos.

Polychlorinated Biphenyls (PCBs)

PCBs are organic oils that were formerly placed in many types of electrical equipment, including transformers and capacitors, primarily as electrical insulators. Years after widespread and commonplace installation, it was discovered that exposure to PCBs may cause various health effects, and that PCBs are highly persistent in the environment.

In 1979, the U.S. EPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment. The use and management of PCBs in electrical equipment is regulated pursuant to the Toxic Substances Control Act, 15 U.S.C. § 2601 et seq. (TSCA). Regulations generally require labeling and periodic inspection of certain types of PCB equipment and set forth detailed safeguards to be followed in disposal of such items.

Lead and Lead-Based Paint

Pursuant to California Code of Regulations, Title 22 Section 66261.24, waste soil containing lead is classified as hazardous if the lead exceeds a total concentration of 1,000 parts per million (ppm) and a soluble concentration of 5 ppm.

Hazardous Materials Business Plans

In accordance with Code of Federal Regulations Title 40, the County must enforce Hazardous Materials Business Plans (HMBP) (California Health and Safety Code Chapter 6.95) to address the safe storage and use of all hazardous chemicals. Napa County Department of Environmental Management conducts regulatory oversight (review of plans and inspections) all businesses including farms, federal agencies, state agencies, and local agencies that handle quantities of hazardous materials/ hazardous waste greater than or equal to 55 gallons of liquid, 500 pounds of solids, and 200 cubic feet of a compressed gas at any time. The Business Plan includes the type and quantity of hazardous materials, a site map showing storage locations of hazardous materials and where they may be used and transported from, risks of using these materials, material safety data sheets for each material, a spill prevention plan, an emergency response plan, employee training consistent with Occupational Safety and Health Administration (OSHA) guidelines, and emergency contact information. The HMBP must be entirely reviewed and updated at least once every three years, or within 30 days of any significant change. Some of these changes are new emergency contact information, major increases or decreases in hazardous materials storage, and/or changes in location of hazardous materials.

City of Napa General Plan

The City of Napa General Plan 2020 contains a *Health and Safety Element* containing policies that relate to hazardous materials. The following goals and policies are listed below that the City has adopted to reduce potential hazards.

Goal HS-1: To reduce the risk to health and safety from hazardous wastes.

> ***Policy HS-7.1.*** The City shall reevaluate, modify if necessary, and implement changes to the short-term goals of the *Household Hazardous Wastes Element.*

Policy HS-7.2. The City shall support the County's proposed Integrated Waste Management Plan.

Policy HS-7.3. The City shall support the County's role as the Certified Unified Program Agency for all County jurisdictions.

Impacts and Mitigation Measures

Significance Criteria

Consistent with CEQA *Guidelines* Appendix G (Environmental Checklist), a project would have a significant impact on the environment if it would:

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

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.

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

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

e) Result in a safety hazard for people residing or working in the project area for a project within the vicinity of a private airstrip or within an airport land use plan.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g) 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.

Approach to Analysis

This following impact analysis focuses on potential impacts of the Project related to exposure to hazardous substances. The evaluation considered Project plans, current conditions at the Project area, and applicable regulations and guidelines. Some of the CEQA criteria are not considered applicable based upon the Project Description (Chapter 3) and research on potential Project impacts; therefore, they will not be evaluated further in this EIR. These issues are:

- *Criteria c – Hazardous Materials Emissions Near a School*: There are a number of schools located within a quarter mile of the Planning Area including Blue Oak School, Hopper Creek Montessori, and New Technology High School. However, as discussed in the Project Description, there are no current nor proposed industrial uses in the Planning Area and therefore, the proposed uses in the Planning Area would not include any hazardous

emissions or handle hazardous materials, substances or waste such that it would put occupants of the school at risk. Therefore, there would not be any potential impacts to any of schools in the Planning Area.

- *Criteria e and f – Vicinity of Airstrip*: The closest airstrip or airport to the Planning Area is the Napa County Airport located approximately 5 miles south, well outside of the Airport Land Use Plan. Therefore, there would no potential impacts to any airports.

- *Criteria g – Emergency Response Plan or Evacuation Plan*: The Project could result in an increased resident, employee and visitor population in the Planning Area. Although the Specific Plan would alter the existing street network by removing the one-way couplets and forming two-way flow, it would comply with all emergency vehicle access requirements as a condition of construction. Overall, the Specific Plan would not impede an established emergency access route or interfere with emergency response requirements and would not result in permanent road closures. Therefore, the Specific Plan would have no impacts to emergency response or evacuation plans.

- *Criteria h – Wildland Fires*: The Planning Area is located within an urbanized area that is not immediately adjacent to any wildlands. All construction that might be associated with the Specific plan would be required to adhere to Building Fire Codes that are designed to minimize the potential for uncontrolled fires. Therefore, implementation of the Specific Plan would not expose people or structures to significant risk of wildland fires and would have no impact.

Impacts and Mitigation Measures

Impact 4.F-1: Existing structures demolished to allow for development facilitated by the Specific Plan could potentially contain hazardous building materials, such as lead-based paint, asbestos-containing materials (ACMs), or polychlorinated biphenyls (PCBs), which could expose and adversely affect workers, the public, or the environment if not handled appropriately. (Less than Significant)

Demolition of any existing structures, especially older structures, where such hazardous building materials were commonly used in construction, could be released during demolition activities and expose construction workers, the public, or the environment. The level of potential impact is dependent upon the age, construction, and building materials in each building, as well as the protocols employed for demolition. However, there are established measures that certified contractors commonly use to contain, store, and dispose of these hazardous materials in a manner that limits exposure. Projects under the Specific Plan would employ appropriate handling and demolition procedures, including conducting thorough surveys to identify the presence of these materials, and adhering to applicable regulations pertaining to particular types of contaminants.

ACMs are regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of Cal-OSHA. Cal-OSHA also regulates worker exposure to lead-based paint. Potential exposure to these hazardous building materials can be reduced through appropriate use of personal protective equipment, isolation and containment of work areas, and placement of waste in approved transport containers.

Both the federal OSHA and Cal-OSHA regulate worker exposure during construction activities that disturb lead-based paint. The Interim Final Rule found in 29 CFR 1926.62 covers construction work in which employees may be exposed to lead during such activities as demolition, removal, surface preparation for repainting, renovation, cleanup, and routine maintenance. The OSHA-specified compliance includes respiratory protection, protective clothing, housekeeping, special high-efficiency filtered vacuums, hygiene facilities, medical surveillance, and training. No minimum level of lead is specified to activate the provisions of this regulation.

California regulates PCBs under Title 22, California Code of Regulations, Sections 66261.24 and 66261.113, as a hazardous waste in liquid format concentrations equal to or above 5 parts per million (ppm) and non-liquids at concentrations equal to or above 50 ppm. If wastes contain the threshold levels stated above, they must be disposed of as a hazardous waste. The same is true for PCB-laden electrical equipment. Liquid wastes are usually either treated and landfilled, or incinerated. Non-liquid wastes are generally landfilled or incinerated, sometimes after non-hazardous parts are recycled. Materials containing detectable concentrations of PCBs are prohibited from being released into sources of drinking water under Proposition 65.

Fluorescent light ballasts containing PCBs are considered hazardous waste and must be transported and disposed of as hazardous waste. Transportation of these ballasts for consolidation prior to disposal is exempted from manifesting and use of a registered hauler up to two 55 gallon drums per vehicle.

Adherence to existing regulations would reduce the potential for hazardous building materials to impact the environment or the public. Therefore, as a condition of construction, proposed redevelopment of older existing facilities would be required to adhere to appropriate identification and abatement procedures by certified contractors who employ practices that limit the exposure of hazardous building materials, where present. Therefore this would be a less than significant impact.

Mitigation: None Required.

Impact 4.F-2: Development facilitated by the Specific Plan would include increased commercial, retail, and hotel land uses that could involve the transportation, use, and storage of hazardous chemicals, which could potentially present public health and/or safety risks to facility workers, residents, and visitors, and the surrounding area. (Less than Significant)

Proposed development facilitated under the Specific Plan would be expected to increase commercial, retail, and hotel land uses and could involve a range of increased chemical products that are considered hazardous materials or hazardous waste. Exposure to hazardous chemicals through improper handling or through accidental upset conditions could cause acute or chronic health effects to the public and environment.

Handling and use of these hazardous materials and the disposal of the resulting hazardous wastes would be required to follow the applicable laws and regulations, as described in *Regulatory Setting* above. The net result of compliance would be the reduction of risks and hazards to workers, the public, and the environment to levels that would be considered acceptable.

Hazardous materials would typically be stored in their original containers prior to use. As required, the hazardous materials would be stored in each building, in locations according to compatibility and in storage enclosures (i.e., flammable material storage cabinets and biological safety cabinets) or in areas or rooms specially designed, protected, and contained for such storage, in accordance with applicable regulations. Hazardous materials would be handled and used in accordance with applicable regulations by personnel that have been trained in the handling and use of the material and that have received proper hazard-communication training. Hazardous materials reporting (i.e., California Hazardous Materials Business Planning, California Proposition 65 notification, and Emergency Planning and Community-Right-to-Know Act reporting) would be completed as required.

In addition, the General Plan contains a number of policies (HS-7.1 through HS-7.3) combined with existing regulatory requirements, such as RCRA "cradle to grave" requirements for hazardous materials and the County's Hazardous Materials Management Plan, that would establish minimum standards for businesses handling hazardous materials. This regulatory framework requires that hazardous materials are stored, handled, and disposed of according to the Hazardous Materials and Waste Management Plan of Napa County and restrictions on facilities handling large quantities of hazardous materials would be placed (however, it is important to note that the proposed Specific Plan does not include industrial or manufacturing uses that would qualify as large quantity users). Transportation routes for hazardous materials would be identified and regulated (Caltrans) to minimize the potential adverse effects from accidental upset conditions. Therefore, this would be a less than significant impact.

Mitigation: None Required.

Impact 4.F-3: Construction facilitated by the Specific Plan could potentially 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. (Less than Significant)

Temporary construction activities associated with development under the proposed Specific Plan may involve the transport and use onsite of hazardous materials, such as limited quantities of gasoline, diesel fuel, hydraulic fluid, solvents, oils, and paints for the construction of individual, projects within the Planning Area. These materials would be transported along the roadways and temporarily stored onsite. Containment and spill clean up is encompassed in the Storm Water Pollution Prevention Plan (SWPPP) discussed in Section 4.G, *Hydrology and Water Quality*, to prevent hazardous materials from spreading off the property. Hazardous materials being generated during construction would be disposed of as described above in Impacts 4.F-1 and 4.F-2. Therefore,

as a condition of construction, compliance with existing regulations would address potential upsets and accidents limiting the potential impacts to less than significant.

Mitigation: None Required.

Impact 4.F-4: Development facilitated by the Specific Plan on land previously impacted by releases of hazardous materials, such as from underground fuel storage tanks, could potentially expose residents or workers to hazardous materials or wastes. (Less than Significant)

Development of vacant or previously developed lots, which have been impacted by petroleum hydrocarbons from leaking underground storage tanks or other chemical constituents, could expose individuals to hazardous conditions resulting from ongoing or historical activities at the site or on neighboring properties that involve the use of hazardous materials or hazardous wastes. Exposure of residents to underground hazardous wastes is considered a potentially significant impact. Areas impacted by former releases could expose construction workers or future residents to hazardous materials or hazardous wastes.

As summarized above, there are a number of sites listed on regulatory agency databases as open cases of hazardous materials releases within the Planning Area. General Plan Policy HS-7.1 requires continued participation in the County's Certified Unified Program Agency, which would reduce the potential impact from historical releases of hazardous materials by requiring an evaluation for potential risks and remediation, if necessary, prior to reuse of contaminated sites. Other existing funding requirements typically required by financial institutions include requirements for the preparation of Phase I environmental site assessments, which evaluate past site uses for the potential to encounter subsurface contamination. Investigations and remediation efforts are generally required by overseeing agencies such as the County's DEM, RWQCB, and the DTSC, which establish cleanup levels according to existing or proposed uses. Therefore, because the completion of cleanup activities required by the regulatory agencies would be a condition of construction, this would be a less than significant impact.

Mitigation: None Required.

Cumulative Impact

Impact 4.F-5: Development facilitated by the Specific Plan, combined with other past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could potentially result in cumulative hazards or hazardous materials impacts. (Less than Significant)

As discussed above, the Specific Plan would result in less than significant hazards and hazardous material impacts related to construction activities and the operation phase. Hazards and hazardous

material impacts typically occur in a local or site-specific context versus a cumulative context combined with other past, present, and future development projects. Implementation of policies outlined in the General Plan combined with regulatory requirements of agencies such as DTSC, RWQCB, Caltrans, and DEM would similarly address site-specific hazards and emergency access and operation for all other existing projects and projects in the foreseeable future. Anticipated development projects (e.g., residential, commercial, and retail land uses) that would occur in the Downtown and surrounding region would not significantly increase human health or safety risks.

This impact is considered less than cumulatively considerable with the implementation of the policy provisions and regulatory requirements identified above that include measures for the safe transport, storage, use, and disposal of hazardous materials and wastes for the protection of human health and the environment.

Mitigation: None Required.

References – Hazards and Hazardous Materials

Department of Toxic Substances Control (DTSC), *EnviroStor Database Results for Napa*, http://www.envirostor.dtsc.ca.gov/public/map.asp?global_id=&x=-119.1357421875&y=37.82280243352756&zl=5&ms=640,480&mt=m&findaddress=True&city=NAPA&zip=&county=&federal_superfund=true&state_response=true&voluntary_cleanup=true&school_cleanup=true&corrective_action=true&permit_site=true&permit_and_ca_site=true, accessed March 30, 2009 and updated March 8, 2011.

State Water Resources Control Board (SWRCB), *GeoTracker Database for Napa*, http://www.geotracker.swrcb.ca.gov/map/, accessed March 30, 2009 and updated March 8, 2011.

4.G Hydrology and Water Quality

This section describes the existing hydrologic resources and the state of water quality in and near the Planning Area and the state and local regulations that would apply to implementing the Specific Plan. In general, this section provides an assessment of regional and local hydrological resources and water quality that could have an effect on the Specific Plan. The Setting section describes existing conditions in terms of local topography, watersheds, surface water, groundwater, water quality, and flooding. The Regulatory Setting describes pertinent state and local laws related to hydrology and water quality considerations of the Specific Plan. The Impacts and Mitigation Measures section defines significance criteria used for the impact assessment and presents a discussion of potential project-related impacts.

Setting

Regional Setting

Climate

The average annual temperature for the Napa Valley ranges from 59 to 62 degrees Fahrenheit. Several microclimates within the Valley vary the temperature substantially from the early morning to the evening and create variances at the same time of day between the northern and southern locations. Average precipitation for Napa Valley is approximately 25 inches per year (Western Regional Climate Center, 2009). The 100-year, 6-hour and 24-hour rainfall intensities are 2.5 -3.0 inches and 5.0 -6.0 inches, respectively (Western Regional Climate Center, 2009). For the 25-year return period, rainfall intensities are 2.0 -2.5 inches for the 6-hour duration, and 4.0-5.0 inches for the 24-hour duration. Summers are hot and dry, and winters are cool and moist. A large majority of the annual precipitation falls during the months of November through April.

Napa River Watershed

The Napa River watershed covers an approximately 426 square-mile-area surrounding the 55 mile-long Napa River. The watershed extends from Mount St. Helena in the north to San Pablo Bay in the south. The watershed is bordered on the west by the Mayacama Mountains and by a northwest-trending ridge on the east. The watershed includes undeveloped areas, such as forests in the hills, riparian vegetation near rivers and creeks, and grasslands in the valley. Much of the valley floor is developed including urban development in cities such as Calistoga, St. Helena, Rutherford, Oakville, Yountville, Napa, and American Canyon. Vineyards comprise a large majority of the approximately 37,000 acres of agricultural land in the valley. The eight major tributaries to Napa River include Sulfur Creek, Conn Creek, Rector Creek, Dry Creek, Milliken Creek, Napa and Redwood Creeks, and Carneros Creek.

Surface Water

Napa River

The Napa River is one of the largest rivers originating in the Central Coast Ranges. The last 17 miles of its reach, from Trancas Street in Napa to the San Pablo Bay, is influenced by tides. During the summer months, the salinity in the Napa River at Trancas Street may be upwards of 10 percent, while during the winter, flows are solely freshwater. There are a total of 47 tributaries to the river with Sheehy Creek considered a minor tributary. The Napa River has repeatedly flooded developed areas in its floodplain over the years.

The Napa River is an impacted river due to urban and agricultural uses in its watershed, which includes the subwatersheds of its tributaries. The Napa County Resource Conservation District, with funding from private landowners, California Coastal Conservancy, RWQCB, Environmental Protection Agency, and CALFED, has initiated a monitoring program for the Napa River and its tributaries to determine the nature of impacts that may be occurring. The Resource Conservation District monitors the Napa River and its tributaries for the following parameters: nutrients, pH, salinity, sediment load, inorganic pollutants, organics pollutants, heavy metals, and pesticides. The RWQCB has also initiated county-level watershed management planning efforts for Napa County due to depressed oxygen levels, high coliform levels, and sedimentation due to erosion in segments of the Napa River (RWQCB, 2007a).

Agriculture, construction/land development, and urban runoff are considered sources of impairment of the water quality of the Napa River and its tributaries. Nutrient inputs are associated with agriculture practices in the watershed, while sediment additions are attributed to construction and land development. Urban runoff has been blamed for the increase in pathogens and coliform through inputs from storm drain systems. As a sponsor of the Resource Conservation District's monitoring and watershed work, the RWQCB has established beneficial uses for the Napa River (see the Regulatory Framework section below for a description of the role beneficial uses play in the regulation of water quality). The beneficial uses for the Napa River include agricultural supply, cold freshwater habitat, fish migration, municipal, domestic and agricultural supply, navigation, rare and endangered species habitat, recreation, fish spawning, warm freshwater habitat, and wildlife habitat (RWQCB, 2007b).

Sedimentation is a substantial problem in the Napa River and its tributaries. Beneficial uses of the Napa River such as wildlife habitat and fish spawning are greatly affected by sedimentation. Historically, the Napa River once was a spawning stream for salmon and steelhead. Sediment can cover anadromous fish spawning gravel and pools, reduce habitat diversity by reducing the diversity of river depths, and adversely affect the food supply for fish. In addition, sediment particles can serve as a mechanism of transport of pollutants such as heavy metals, agricultural chemicals, or excess nutrients to the aquatic habitat. The overall reduction in flows in the river system due to supply withdrawals has diminished the natural "flushing" action, thereby keeping deposited sediment in the system. This in turn worsens the effects of increased sediment in the system.

Downstream from the City of Napa, the Napa River broadens to receive the meandering sloughs of the Napa Marsh Area. Existing and historical wetlands in the Area comprise approximately 27,700 acres of the lower Napa River Watershed. Fagan Slough is part of the Napa Marsh Area.

Water Quality

Nonpoint Source Pollution

During periods of wet weather, rain carries pollutants and sediments from all parts of a watershed into surface water bodies such as storm drains, streams, rivers, reservoirs, or marshes. In an urban setting, natural drainage patterns have been altered and stormwater runoffs, as well as non-storm discharges (irrigation water, accidental spills, washdown water, etc.), pick up sediments and contaminants from land surfaces, and transport these pollutants into surface and ground water. These diffuse sources of pollutants range from parking lots, bare earth at construction sites, agricultural sites and a host of many other sources. The total amount of pollutants entering aquatic systems from these diffuse, nonpoint sources is now generally considered to be greater than that from any other source, such as pipe discharges (point source).

Industrial and agricultural runoff can contribute substantial quantities of nonpoint source pollutants to the waters of Napa Valley. Pollutants of concern typically found in industrial and agricultural runoff include sediments, nutrients, pathogens, oxygen demanding substances (plant debris, animal wastes, etc.), petroleum hydrocarbons, heavy metals, toxic pollutants, floatables (litter, yard wastes, etc.), and synthetic organics (pesticides, herbicides, PCBs, etc.). Runoff can also include sediment and other pollutants discharging from construction sites due to improper erosion control measures. The Regional Water Quality Control Board (RWQCB) regulates nonpoint source pollution through the National Pollutant Discharge Elimination System (NPDES) program with the issuance of permits for municipal stormwater systems, industrial areas, and construction activities over one acre in size. Municipalities and districts that operate storm drain systems are required to develop comprehensive urban runoff control programs, while construction NPDES permits require the development of a Stormwater Pollution Prevention Plan (SWPPP) with the use of current stormwater best management practices.

The impacts of nonpoint source pollutants in urban runoff on aquatic systems are many and varied. Polluted runoff can result in significant adverse impacts to aquatic ecosystems, public use, human health including ground and surface water contamination, damage to and destruction of wildlife habitat, decline in fisheries, and loss of recreational opportunities. Small soil particles washed into streams can smother spawning grounds and marsh habitat. Suspended particulates can restrict light penetration into water and limit photosynthesis of aquatic biota. Nutrients of agricultural areas can induce accelerated algal growth that can reduce dissolved oxygen levels. Metals and petroleum hydrocarbons washed off from roadways and parking lots may cause toxic responses in aquatic life or contaminate possible water supply sources such as aquifers.

The USEPA approved the 2006 California 303 (d) List and Total Maximum Daily Load (TMDL) Priority Schedule in 2007. This list included the Napa River as a high priority for restoration and protection because of high levels of agriculture nutrients, pathogens, and sedimentation/siltation.

TMDL is a national program mandated by the Clean Water Act to identify pollution problems, determine pollution sources, and develop plans to restore the health of polluted bodies of water. The TMDL for Napa River pathogens was adopted in June of 2006. On September 9, 2009, the RWQCB adopted a Basin Plan amendment incorporating a TMDL for sediment and a Habitat Enhancement Plan for the Napa River. The amendment was subsequently approved by the Office of Administrative Law and the U.S. EPA in January 2011. The TMDL for Napa River nutrients is in progress and has not been finalized (RWQCB, 2007b).

Groundwater

Groundwater is defined as subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated. Where groundwater occurs in a saturated geologic unit that contains sufficient permeable thickness to yield substantial quantities of water to wells and springs, it can be defined as an aquifer. The Planning Area is located within the Napa Valley Groundwater Basin as identified by the Department of Water Resources (DWR, 2003). Salinity increases with depth and some past incidents of overpumping in the region have caused inflows of brackish water.

The principal water-yielding materials in the Napa Valley lowlands are unconsolidated alluvial deposits (gravels, sands, silts, and clays) and the Huichica Formation (silts, gravels and boulders with reworked volcanic materials at depth). Alluvial-fan deposits and stream-valley alluvium compose the major part of the aquifer as the Huichica Formation has very low permeability and low water yields. Recharge to the groundwater flow system enters permeable sediments at the valley margins, primarily as runoff from precipitation in the mountains and hills that surround the valley. Other sources of recharge are precipitation that falls directly on permeable deposits in low-lying areas of the valley and seepage through streambeds in areas where the water table is lower than the stream level and the streambed sediments are sufficiently permeable to permit infiltration into the aquifers.

All the watersheds in the Napa Valley are drained by streams that are perennial only in their upper reaches except for the Napa River. The lower reaches become dry in summer because of infiltration where they are underlain by permeable deposits. The groundwater flow system in most basins is essentially self-contained, and interbasin transfer of water is minor. Groundwater recharge and discharge are approximately in balance on an average annual basis in most areas, and withdrawals in excess of recharge are not common. However, seawater intrusion caused by excessive groundwater withdrawal has been a problem in the lower parts of the Napa Valley near San Pablo Bay (USGS, 1998). Sources of chloride in the north San Francisco Bay Area aquifers include seawater intrusion, thermal water, and dissolved minerals from marine and volcanic rocks. The valleys most affected by large chloride concentrations are the Petaluma, Sonoma, and Napa Valleys, in which seawater intrusion caused by groundwater withdrawals has been the primary source of chlorides.

Flooding

Napa County has a history of severe flooding. Almost all of the land adjacent to the Napa River through the City of Napa is subject to flooding. Twenty-seven damaging floods have been recorded since 1862 on the Napa River. Seven major floods have occurred between 1862 and 1900. The 15 most recent serious floods occurred in 1942, 1943, 1955, 1962, 1963, 1965, 1967, 1973, 1978, 1982, 1983, 1986, 1995, 1997 and 2006. The February 1986 flood was estimated to have been a 35-year event. The flood resulted in three people dead, 27 injured, 5,000 evacuations, 250 homes destroyed, and another 2,500 residences damaged county wide, totaling $100 million in damages. The 1995 flood damaged an estimated 227 businesses and residences also at a cost of over $100 million.

In response to the damage from the flood in 1986, the Napa County Flood Control and Water Conservation District (NCFCWCD) petitioned the U.S. Army Corps of Engineers to reinitiate the Napa River Flood Protection Project from its inactive status. The purpose of the project is to create a "Living River" with incorporating multiple goals that include reducing flood damage, restoring wetlands and native ecosystems and reconnecting the river to the floodplain, providing river-related economic development opportunities, and expanding recreational opportunities. Construction began in 2000 and multiple elements are complete, with remaining elements scheduled for completion by approximately 2017 (pending sufficient allocations of federal funding (Napa County FCWCD, 2009).

The City of Napa is at risk of both flash floods and more gradual rise floods (Napa, 2011). Typical floods on the Napa River result in the more gradual rise floods. This type of flood is preceded by a warning time lasting from hours to days. There is a sequence of events—rainfall producing heavy runoff, flood watches and river advisories issued— that can be tracked over time. Areas at risk of flooding in the City of Napa are generally from Trancas Street in the north to Imola Avenue in the south, Coombs Street to the west and Silverado Trail to the east. The Planning Area is generally located entirely within the areas considered by the City of Napa to be of greatest risk of flooding (Napa, 2011). However, the flooding potential has decreased based on the Flood Project elements completed to date and will continue to change with the completion of the additional proposed construction contracts for the Napa River/Napa Creek Flood Protection Project Once the Flood Project construction is complete; the improvements have been designed to pass the one percent chance flood event.

Section 17.38.070 of the Municipal Code, regulates development in the Flood Evacuation Area and limits development in that area to 4 units or fewer, unless a flood evacuation plan is prepared.

Flooding can also occur through the catastrophic failure of a reservoir dam. According to mapping compiled by the Association of Bay Area Governments, the Planning Area is located within an inundation area for one to three sources (ABAG, 2011).[1]

[1] Mapping compiled by ABAG indicates overlapping areas that would be inundated from releases for all area dams.

Sea Level Rise

According to the San Francisco Bay Conservation and Development Commission (BCDC), the sea level in the Bay Area could potentially rise up to 55 inches during the next hundred years. BCDC's models illustrate that portions of Napa County, particularly along the Napa River, may be subject to increased flooding with just 16 inches of sea level rise (BCDC, 2008). The actual amount of sea level rise has been the subject of numerous studies without much consensus on what to expect over a hundred year period. According to the BCDC maps, the majority of changes in terms of inundation from 16 to 55 inches of sea level rise would occur downstream of the Planning Area.

Regulatory Setting

Federal, state, and local agencies regulate activities that could affect hydrological and water quality features in the Planning Area. This section briefly describes the regulatory framework that would apply to the Specific Plan.

Federal

Clean Water Act (CWA)

The CWA established the basic structure for regulating discharges of pollutants into the waters of the U.S. and gave the USEPA the authority to implement pollution control programs such as setting wastewater standards for industry. The CWA sets water quality standards for all contaminants in surface waters. The statute employs a variety of regulatory and nonregulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The U.S. Army Corps of Engineers (USACE) has jurisdiction over all waters of the U.S. including, but not limited to, perennial and intermittent streams, lakes, and ponds, as well as wetlands in marshes, wet meadows, and side hill seeps. Under Section 401 of the CWA every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification that the proposed activity will comply with state water quality standards.

The National Pollutant Discharge Elimination System (NPDES) permit program under the CWA controls water pollution by regulating point and nonpoint sources that discharge pollutants into "waters of the U.S." California has an approved state NPDES program. The USEPA has delegated authority for NPDES permitting to the California State Water Resources Control Board (SWRCB), which has nine regional boards. The San Francisco Bay RWQCB regulates water quality in the Planning Area.

Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., not meeting one or more of the water quality standards established by the state). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the state is required to establish Total Maximum Daily Load (TMDL) for the pollutant causing the conditions of impairment. TMDL is the maximum amount of a pollutant that a water body can

receive and still meet water quality standards. Generally, TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The intent of the Section 303(d) list is to identify water bodies that require future development of a TMDL to maintain water quality.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, Division 7 of the California Water Code, allows the SWRCB to adopt statewide water quality control plans. The purpose of the plans is to establish water quality objectives for specific water bodies. The act also authorizes the NPDES program under the CWA, which establishes water quality requirements for discharges to waters of the state. Most of the implementation of SWRCB's responsibilities is delegated to nine regional boards. The San Francisco Bay RWQCB has established permit requirements for stormwater runoff for the Planning Area (see *Regional Regulatory Setting* below).

California Toxics Rule

Under the California Toxic Rule, the USEPA has proposed water quality criteria for priority toxic pollutants for inland surface waters, enclosed bays, and estuaries. These federally promulgated criteria create water quality standards for California waters. The California Toxic Rule satisfies CWA requirements and protects public health and the environment. The USEPA and the SWRCB have the authority to enforce these standards. However, the proposed project would not discharge toxic pollutants directly into the inland surface waters, such as Lake Merritt, or San Francisco Bay, therefore the California Toxic Rule would not apply.

Regional

Regional Water Quality Control Board

The San Francisco Bay RWQCB is responsible for the protection of beneficial uses and the water quality of water resources within the San Francisco Bay region. The San Francisco Bay RWQCB administers the NPDES stormwater permitting program and regulates stormwater in the San Francisco Bay region. The City of Napa is a permittee under the Phase II NPDES Municipal Stormwater Permit for the Napa County Countywide Clean Water Program. Project applicants are required to apply for a NPDES General Permit for discharges associated with project construction activities of greater than one acre.

General Permit

Stormwater discharges from construction activities on one acre or more are regulated by the RWQCB and are subject to the permitting requirements of the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). Effective July 1, 2010 all dischargers have been required to obtain coverage under the Construction General Permit Order 2009-0009-DWQ adopted on September 2, 2009. The RWQCB

established the General Construction Permit program to reduce surface water impacts from construction activities. The proposed project would be required to comply with the current NPDES permit requirements to control stormwater discharges from the construction site. (See *Napa County Regulations* below). The General Construction Permit requires the preparation and implementation of a SWPPP for construction activities. The SWPPP must be prepared before the construction begins, and in certain cases, before demolition begins. The SWPPP must include specifications for BMPs that would need to be implemented during project construction. BMPs are measures that are undertaken to control degradation of surface water by preventing soil erosion or the discharge of pollutants from the construction area. The SWPPP must describe measures to prevent or control runoff after construction is complete and identify procedures for inspecting and maintaining facilities or other project elements. Required elements of a SWPPP include:

1. Site description addressing the elements and characteristics specific to the site
2. Descriptions of BMPs for erosion and sediment controls;
3. BMPs for construction waste handling and disposal;
4. Implementation of approved local plans;
5. Proposed post-construction controls; and
6. Non-stormwater management.

Examples of typical construction BMPs include scheduling or limiting activities to certain times of year, installing sediment barriers such as silt fence and fiber rolls, maintaining equipment and vehicles used for construction, tracking controls such as stabilizing entrances to the construction site, and developing and implementing a spill prevention and cleanup plan. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and equipment washing and fueling. The California Stormwater Quality Association established BMPs for the State of California in the *California Storm Water Best Management Practice Handbook* (2003).

Regional Water Quality Control Plan

The San Francisco Bay RWQCB prepared the *San Francisco Bay Basin Water Quality Control Plan* (Basin Plan) for San Francisco Bay (RWQCB, 2007). The Basin Plan contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the region and describes beneficial uses of major surface waters and their tributaries. The Basin Plan lists following beneficial uses for Napa River:

- Agricultural Supply
- Municipal Supply
- Cold Freshwater Habitat
- Fish Migration
- Navigation
- Preservation of Rare and Endangered Species
- Fish Migration

- Fish Spawning
- Warm Freshwater Habitat
- Wildlife Habitat
- Water Contact Recreation
- Noncontact Recreation
- Navigation

For development under the Specific Plan, the RWQCB is responsible for regulating construction activities to ensure the protection of the above beneficial uses.

Local Plans and Policies

City of Napa Storm Water Management Plan

The City of Napa is required by the Federal Clean Water Act to obtain a permit to discharge storm water. This General Permit requires the City of Napa to:

Develop and implement a Storm Water Management Plan (SWMP) that describes Best Management Practices (BMPs), measurable goals, and timetables for implementation in the following six program areas (Minimum Control Measures):

- *Public Education*: The City of Napa must educate the public in its permitted jurisdiction about the importance of the storm water program and the public's role in the program**.**

- *Public Participation*: The City of Napa must comply with all State and local notice requirements when implementing a public involvement/participation program.

- *Illicit Discharge Detection and Elimination*: The City of Napa must adopt and enforce ordinances or take equivalent measures that prohibit illicit discharges. The City of Napa must also implement a program to detect illicit discharge**.**

- *Construction Site Storm Water Runoff Control*: The City of Napa must develop a program to control the discharge of pollutants from construction sites greater than or equal to one acre in size within its permitted jurisdiction. The program must include inspections of construction sites and enforcement actions against violators.

- *Post Construction Storm Water Management*: The City of Napa must require long-term post-construction BMPs that protect water quality and control runoff flow, to be incorporated into development and significant redevelopment projects. Post-construction programs are most efficient when they stress (i) low impact design; (ii) source controls; and (iii) treatment controls**.**

- *Pollution Prevention/Good Housekeeping for Municipal Operations*: The City of Napa must examine its own activities and develop a program to prevent the discharge of pollutants from these activities. At a minimum, the program must educate staff on pollution prevention, and minimize pollutant sources.

City of Napa Stormwater Runoff Pollution Control Ordinance Code

To reduce pollution and meet permit requirements the City of Napa adopted Chapter 8.36, Stormwater Runoff Pollution Control Ordinance, on June 15, 2004. The ordinance is intended to protect water resources and improve water quality by reducing adverse effects of polluted runoff discharges on waters of the state and secure benefits from the use of stormwater as a resource. The ordinance seeks to promote these purposes by:

- Prohibiting illicit discharges to the stormwater conveyance system;
- Establishing authority to adopt minimum requirements for stormwater management, including source control requirements, to prevent and reduce pollution;
- Establishing authority to adopt requirements for development project site design, to reduce stormwater pollution and erosion both during construction and after project is complete;
- Establishing authority to adopt requirements for the management of stormwater flows from development projects, both to prevent erosion and to protect and enhance existing water-dependent habitats; and
- Establishing authority to adopt standards for the use of off-site facilities for stormwater management to supplement on-site practices at new development sites.

City of Napa Floodplain Management Ordinance

In order for the City of Napa to participate in the National Flood Insurance Program (NFIP), the City's Floodplain Management Ordinance, located in the Zoning Ordinance (Chapter 17.38) has been approved by FEMA and the City is the Floodplain Administrator. The ordinance includes special standards for development proposed for location in the floodplain and floodway, and regulations for analyzing such development. The purpose of these regulations is to:

- Protect the public health, safety and welfare of residents and property potentially affected by flood hazards;
- Reduce the costs incurred by the City from inappropriate and unsuitable development located in the floodplain;
- Minimize the need for rescue and relief efforts associated with flooding;
- Minimize the length of time for business interruptions;
- Minimize damage to public facilities and utilities; and
- Implement the regulations of the National Flood Insurance Program and Related Regulations administered by FEMA.

City of Napa General Plan

The following goals and policies from the City of Napa's General Plan are related to flooding and dam inundation hazards in the City of Napa:

Goal HS-3: To reduce the risk to life and property from flooding.

Policy HS-3.1. The City shall continue to provide for floodplain management to protect its residents and property from the hazards of development in the floodplain of the Napa River and its tributaries.

Policy HS-3.2. The City shall continue to apply flood plain management regulations for development in the floodplain and floodway.

Policy HS-3.3. The City shall continue to participate in the Federal Emergency Management Agency's National Flood Insurance Program.

Policy HS-3.4. The City shall continue to utilize the Federal Emergency Management Agency's Flood Insurance Rate Map to define the flood hazard areas, the floodway and the floodplain.

Policy HS-3.5. The City shall balance the housing needs of its residents against the risk from potential flood-related hazards.

Policy HS-3.6. The City shall support programs and methods to reduce the flooding of the Napa River and its tributaries.

Policy HS-3.7. The City shall continue to assist the Army Corps of Engineers, Napa County, other responsible agencies, and the public to maintain funding for the development of the Napa River Flood Management Project.

Policy HS-3.8. The City shall continue to cooperate with Napa County to maintain a reliable funding source for the local share of flood control costs.

Impacts and Mitigation Measures

Significance Criteria

Consistent with CEQA *Guidelines* Appendix G (Environmental Checklist) the Specific Plan would have a significant impact if it would:

a) Violate any water quality standards or waste discharge requirements;

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

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 that would result in substantial erosion or siltation on- or off-site;

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 increasing the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

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

f) Otherwise substantially degrade water quality;

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;

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

i) Expose people or structures to a substantial risk of loss, injury or death involving flooding as a result of the failure of a levee or dam;

j) Result in inundation by seiche, tsunami, or mudflow;

Approach to Analysis

This following impact analysis focuses on potential impacts of Specific Plan implementation related to hydrology and water quality. The evaluation considered potential development under the Specific Plan, current conditions at the Planning Area, and applicable regulations and guidelines. Some of the above CEQA criteria are not considered relevant to the Specific Plan based upon the program level analysis of this EIR, the geographic context of the Planning Area, and data research. These criteria would not result in impacts and therefore will not be evaluated further in this EIR. These criteria are:

- *Criteria b – Depletion of Groundwater Supplies.* The underlying groundwater aquifer in the Planning Area is not used for water supply purposes. No groundwater extraction beyond minor temporary dewatering activities that may be required for construction would be facilitated by the proposed Specific Plan. The Planning Area is currently largely developed and covered in impervious surfaces. The proposed Specific Plan includes stormwater management guidelines encouraging design features that would increase pervious surfaces and, as a result, groundwater recharge. Therefore, there is no adverse potential impact associated with development facilitated by the Specific Plan relative to the depletion of groundwater supplies.

- *Criteria j – Seiche Tsunami, Mudflows*. The Planning Area is located in an inland area that is not within an area subject to seiches, tsunamis or mudflows. Therefore, there is no impact associated with these hazards.

Impacts and Mitigation Measures

Impact 4.H-1: Development facilitated by the Specific Plan could potentially violate water quality standards, violate waste discharge requirements, or otherwise degrade water quality by increasing nonpoint source pollutants in stormwater runoff. (Less than Significant)

As discussed above, stormwater pollution includes oils, fuels, heavy metals, pesticides and other contaminants of concern that settle on city streets and parking lots that are subsequently washed into local waterways during storm events. Pollutants also include sedimentation caused by

erosion from such activities as ground clearing for construction, chemicals used for lawn and garden maintenance, and litter. New and increased concentrations of urban land uses could increase the level of stormwater pollution that could ultimately wash to the Napa River and Napa Creek, which are already identified as impaired waters of the State. Any increased point or nonpoint source pollution is considered a potentially significant impact.

Pollutants in stormwater runoff associated with development under the Specific Plan would be minimized with adherence to the guidelines, ordinances, and permit requirements discussed above in the Regulatory Setting. Addition design features that reduce stormwater runoff volumes also would also be effective in reducing pollutant loading to receiving waters such as the Napa River and Napa Creek. Design standards applicable under the Specific Plan would be consistent with the City's Storm Water Management Plan and Stormwater Runoff Pollution Control Ordinance, which include pollutant source control features such as use of landscaped areas for infiltration of stormwater, permeable paving, stormwater detention basins, and parking lots with bio-infiltrations systems. Incorporation of these design features would ensure that development facilitated under the Specific Plan would improve the water quality of runoff directed offsite to downstream receiving waters. Therefore, this impact would be a less than significant impact.

Mitigation: None Required.

Impact 4.H-2: Development facilitated by the Specific Plan could potentially alter existing drainage patterns, causing downstream erosion, siltation, or flooding. (Less than Significant)

In general, changes in urban development can be accompanied by decreases in natural ground cover and an increase in impervious surfaces (such as paved areas and buildings). New development on vacant sites would alter existing drainage patterns to accommodate proposed site design. Development would also cause erosion, such as when ground is cleared for construction, resulting in the siltation of creeks and reduction of their capacity to accommodate stormwater.

The Planning Area is already largely developed and covered primarily by impervious surfaces such as roads, buildings, and parking lots. As mentioned above, development under the Specific Plan would include design features that incorporate stormwater management guidelines. These design features might alter the drainage patterns; however, they would likely result in a net reduction in stormwater flows offsite through the addition of pervious surfaces (e.g. sidewalk planters, planter strips, permeable pavers, porous asphalt parking lots, stormwater detention and infiltration, etc.).

In addition, site-specific project plans would be required to adhere to the City's Storm Water Management Plan and Stormwater Runoff Pollution Control Ordinance, which would require source controls of stormwater volumes either through detention or local infiltration. Adherence to these existing stormwater requirements would generally improve drainage facilities over existing conditions, require erosion and sedimentation control measures for construction and operation,

comply with the local Storm Water Management Plan, and require design standards that would reduce the amount of stormwater going offsite to the extent practical.

Incorporation of these guidelines, ordinances, and permit requirements would ensure that new development or redevelopment projects facilitated by the Specific Plan would limit the amount of runoff that would be directed offsite and could even reduce volumes over existing conditions. Therefore this would be a less than significant impact to downstream receiving waters.

Mitigation: None Required.

Impact 4.H-3: Development facilitated by the Specific Plan could place housing or structures in the floodplain that could potentially expose people to a substantial risk of loss, injury or death. (Less than Significant)

The City of Napa has a history of flooding events associated with the close proximity to the Napa River and its tributaries. Following the 1986 flood, the City established a Flood Evacuation Area (FEA) in order reduce exposure to future flooding for residential development located in areas that might become inaccessible by emergency vehicles. Portions of the Planning Area are located within an identified floodplain hazard area as well as the FEA (Napa, 2009). The floodplain hazard areas could also be affected in the future by sea level rise. It is difficult to predict the exact amount of sea level rise and consequently the potential associated hazard due to the likely long time frames necessary before a better understanding of the potential effects is known.

Development facilitated by the proposed Specific Plan would result in construction of structures including residential land uses within the floodplain and the FEA. One of the regulatory measures associated with the establishment of the FEA requires that any proposed residential development in the FEA resulting in more than four dwelling units on a parcel must have a flood evacuation plan approved by the Public Works Department. The plan must show how the residents of the proposed development can safely walk or drive out of the floodplain during a flood. In addition to the establishment of the FEA land use regulation, the Napa River Flood Protection Project, which began construction in 2000, includes various flood protection improvements that have effectively lowered the water surface elevation in several areas (Napa, 2009).

The City of Napa General Plan contains a number of policies which would help minimize the flood hazard potential for new development. Policies **HS-3.1** through **HS-3.8** are centered around flood protection; and, in particular, **HS-3.2** would place restrictions on development within the floodplain. In addition, development would be required to adhere to the City's Floodplain Management Ordinance and the FEA land use regulations. Development facilitated by the proposed Specific Plan would be required to adhere to these regulations combined with the continued improvements associated with the Napa River Flood Protection Project. This impact is less than significant.

Mitigation: None Required.

Impact 4.H-4: Development facilitated by the Specific Plan could potentially expose people or structures to risk of flooding due to the failure of a dam. (Less than Significant)

Several reservoirs are located within the Napa area including the Lake Hennessey (Conn Creek dam), Lake Milliken Reservoirs, and another dam located at Rector Reservoir. The dams on these reservoirs are under the jurisdiction of the DSOD, which imposes strict standards for the design, maintenance, and monitoring of dams under its jurisdiction. DSOD requirements for siting, engineering, construction, and monitoring of dams are continually improved as knowledge increases as to how and why dams fail. In 1986, the Conn Creek Dam was determined to be of sufficient integrity in the event of a major earthquake (Napa, 2009). In 2008, seismic modifications were made to the Milliken Dam to lower the water height behind the dam. The Rector Reservoir is an earth fill dam that is under the jurisdiction of the State which also is required to adhere to the maintenance and monitoring required by DSOD.

In addition to the DSOD requirements, risks associated with dams in the vicinity of the Planning Area are addressed by several of the policies included in the General Plan. Policies **HS-4.1** and **HS-4.2** are specifically directed at minimizing the risk associated with dams. These policies require inspection and maintenance of water storage facilities, location of essential public facilities outside of potential dam inundation areas, and support measures to conduct periodic inspections of local dams as well as provide protection of public and private properties from dam inundation. Therefore the risk of flooding due to dam failure is considered less than significant.

Mitigation: None Required.

Cumulative Impact

Impact 4.H-5: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future plans and project in the vicinity, could potentially introduce additional non-point source pollutants to surface waters. (Less than Significant)

Development facilitated by the proposed Specific Plan would result in indirect cumulative impacts on water resources by accommodating future planned urban development that would have the potential to alter drainage patterns and impact water quality. In addition, any increases in impervious surfaces could create higher erosion rates as well as reduce groundwater recharge. The proposed Specific Plan and other present and future projects in the region would be required to comply with drainage and grading ordinances intended to control runoff and regulate water quality at each development site. New projects would be required to demonstrate adequate capacities of stormwater volumes that would be managed by downstream conveyance facilities. In addition, the Specific Plan includes proposed improvements to the existing stormwater system to meet current standards as well as address future development anticipated by the plan. The

City's Storm Water Management Plan, Stormwater Runoff Pollution Control Ordinance, and National Pollution Discharge Elimination System (NPDES) permitting requirements apply throughout the Planning Area. All construction work would require permits from the Regional Water Quality Control Board which requires all activities to incorporate Best Management Practices that minimize adverse effects to water quality. Final design plans would be required to include storm water management features that address stormwater quantity and quality and that would minimize the potential for adverse impacts of receiving waters. Therefore, the effect of the proposed Specific Plan on water quality and hydrology, in combination with other past, present, and foreseeable projects would not be significant.

Mitigation: None Required.

References – Hydrology and Water Quality

San Francisco Bay Conservation and Development Commission (BCDC), *Areas Vulnerable to Sea Level Rise: Napa River*, http://www.bcdc.ca.gov/planning/climate_change/maps/16_55/napa_river.pdf, from Knowles 2008.

Department of Water Resources (DWR), *California's Groundwater: Bulletin 118*, update 2003.

Napa, City of, *Map of Flood Inundation Areas*, http://www.cityofnapa.org/index.php?option=com_content&view=article&id=550&Itemid=666, accessed March 1, 2011.

Napa County Flood Control and Water Conservation District, *Frequently Asked Questions*, http://www.co.napa.ca.us/GOV/Departments/DeptFAQ.asp?DID=6, accessed March 30, 2009.

Regional Water Quality Control Board (RWQCB), Final 2006 CWA Section 303(d) List of Water Quality Limited Segments, USEPA Approved 2007a.

Regional Water Quality Control Board (RWQCB), *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan), Beneficial Uses*, http://www.swrcb.ca.gov/sanfranciscobay/water_issues/programs/basin_plan/docs/bp_ch2+tables.pdf, January 18, 2007b.

Western Regional Climate Center, *NOAA Atlas 2* (published in 1973) webpage within the Western Regional Climate Center website, http://www.wrcc.dri.edu/pcpnfreq.html, accessed March 30, 2009.

4.H Land Use and Planning

This section includes a description of the existing land uses in Downtown and an analysis of the effects that the Specific Plan would have on land use in the Planning Area. This section also includes an analysis of potential land use impacts, including a discussion of the Specific Plan's consistency with relevant local policies, most of which are part of the General Plan.

Setting

Regional Setting

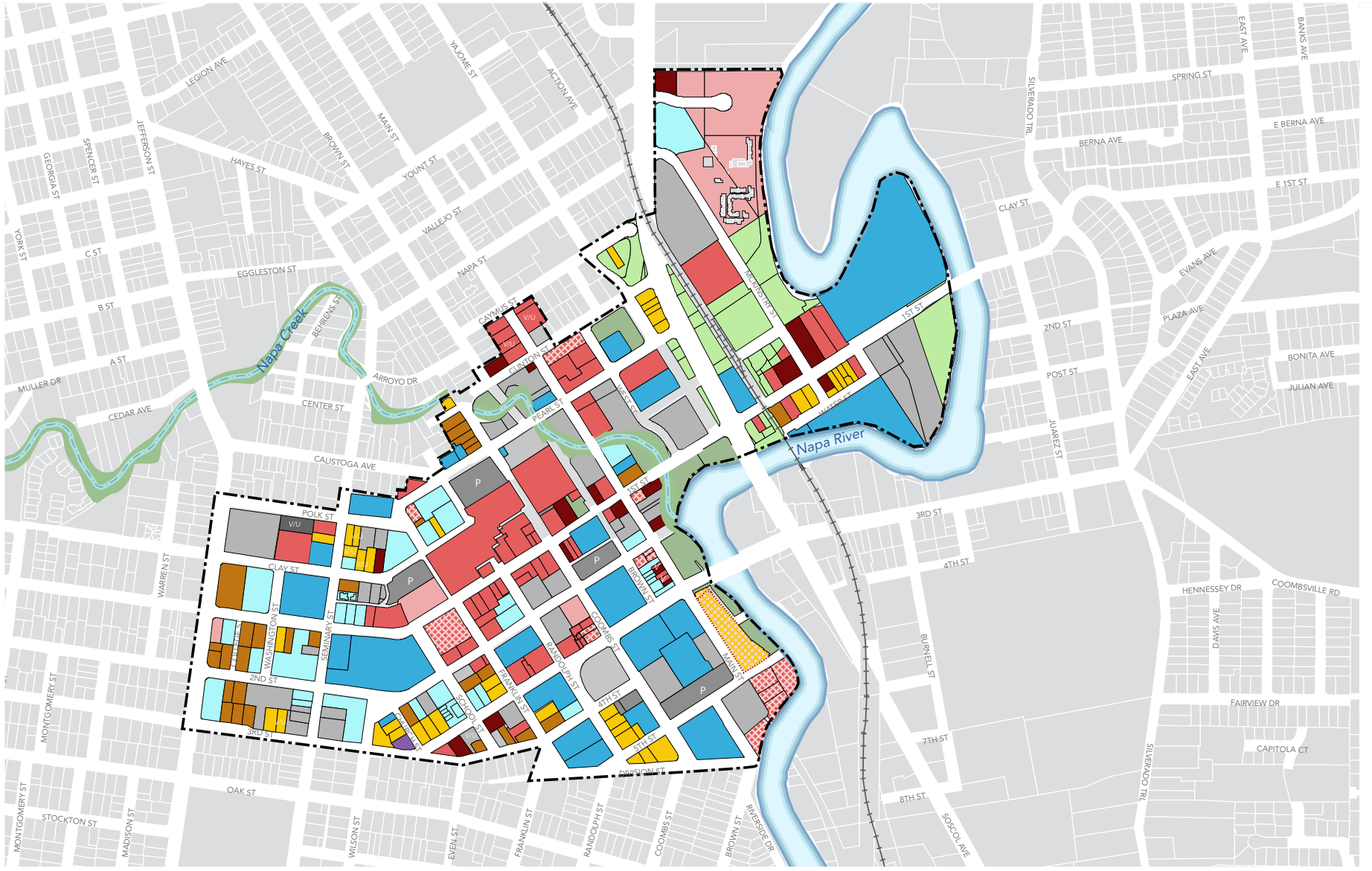
Located in Northern California approximately 50 miles of San Francisco, the City of Napa is situated at the southern end of the Napa Valley. The Napa River runs north-south through the City, starting in Mount St. Helena to the north, flowing south through San Pablo Bay and emptying into the San Francisco Bay. Located on the Napa Valley floor and surrounded by rolling hills, the City's surroundings are predominantly rural and agricultural.

The Planning Area

A wide range of land uses currently exist in the Planning Area (see **Figure 4.H-1**). Overall, Downtown is predominantly composed of commercial, office, and public uses with a limited amount of housing. Existing Downtown uses currently are clustered in various subareas. These subareas can be loosely categorized by their General Plan land use categories: Downtown Commercial, Residential Office, Oxbow Mixed-Use and Public/Quasi Public (see **Figure 4.H-2**). The following section describes the various existing land uses by subarea.

Most of the Planning Area core west of Soscol Avenue falls under the Downtown Commercial land use category and presents diverse commercial uses ranging from small, local shops and restaurants to larger-format retails targeted to both residents and tourists. Most Downtown parcels have a singular use such as retail or office; however, there are examples of mixed-use developments, some that are historic, and others that were developed more recently. A range of restaurants operate in the Downtown Commercial subarea, catering to both Downtown office workers and Napa Valley visitors. Additionally, there are numerous offices located in the Planning Area. The presence of both the City and County administration offices and Courts encourage related office types to locate in Downtown, such as law offices, engineering offices, architecture offices and others.

The Downtown Commercial subarea also includes a range of community services and amenities that serve the day-to-day needs of Napa residents and community members. These amenities include several churches, neighborhood-serving retail such as Safeway and Zeller's Ace Hardware, as well as office supply stores, shoe repair, dry cleaners, hair and nail salons. Other amenities include parks and open space as well entertainment venues. Parking structures and surface parking areas are numerous and spread throughout the Downtown Commercial subarea.

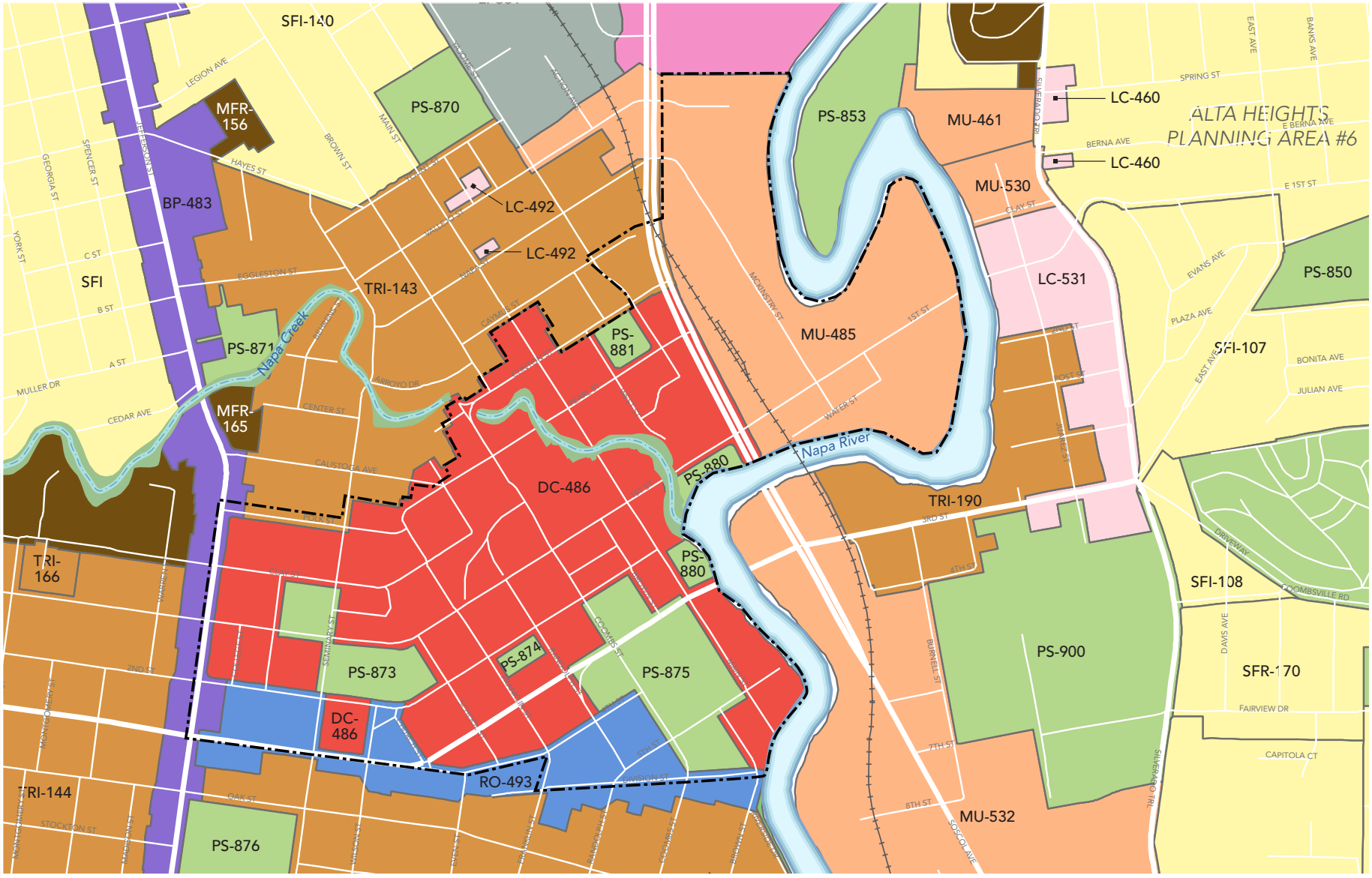


SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.H-1

Existing Land Uses



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.H-2

General Plan Land Uses Categories

As noted on Figure 4.H-1, several vacant buildings currently exist within the Downtown core. Some of these vacant buildings are in disrepair, while others are in good physical condition, but lack tenants. In either case, Downtown vacancies need to be addressed in order to create a vibrant, active urban environment.

Downtown also contains numerous government buildings. The Public/Quasi Public subarea refers to a number of Napa City and County uses, such as the County Courthouse, Law Library, County Jail and County administration offices, and the Napa Library. The City of Napa owns and leases multiple office locations throughout Downtown, such as City Hall, Police and Fire Administration, and other city departments. The U.S. Post Office also maintains a main branch in Downtown.

Additionally, Downtown includes a Residential-Office subarea located south of the Downtown Commercial subarea. This area includes a number of historic residential structures that have been converted to office uses. These properties have maintained their original residential appearance, with office signage and parking areas as the only indication of a changed use.

On the east side of Soscol Avenue, Downtown includes the Oxbow Mixed-Use subarea, which has many visitor-serving uses in the form of hotels, dining opportunities and the Oxbow Market. Copia, prior to its recent closure, was also an important destination for tourists interested in the Napa Valley's wine culture.

There is a limited amount of housing, approximately 125 units, within the Planning Area, which includes primarily of single-family homes and small apartments scattered throughout the area. Although City plans have encouraged new residential mixed-use development for some time, the Downtown Riverfront project is the first and largest such development. Several residential neighborhoods are directly adjacent to the Planning Area on the south, north, and west. The 2020 General Plan has designated these areas for low-density development, recognizing their predominant use; however, these older neighborhoods contain a variety of existing housing types. These residential neighborhoods also include two historic districts: the Napa Abajo/Fuller Park Historic District and the Calistoga Avenue Historic District.

Public parks and natural open space are generally concentrated along Main Street, First Street and the Napa River. Veteran's Memorial Park is a newly-renovated park that allows the community to host large outdoor social gatherings and enjoy waterfront views. Dwight Murray Plaza on First Street is a medium-sized urban plaza in a central location. The Napa Skate Park is currently located on a block owned by Napa Sanitation District that is being surplused as the District no longer needs a major pump station on the block. Historic Fuller Park, located one block southwest of Downtown, serves the residential neighborhoods south of Downtown.

In addition to Downtown's formal public spaces, the City closes First Street periodically for public events such as the Chef's Market, auto shows, and wine and art fair events. As such, First Street serves as an informal plaza and important community gathering place.

Neighborhoods immediately adjacent to the Planning Area are characterized by small lots laid out in a predominantly grid pattern with a mix of housing types. These neighborhoods typically have a General Plan designation of Traditional Residential Infill (TRI).

Regulatory Setting

The following section outlines the existing land use policies, land use designations, and zoning regulations that currently apply to all areas in Downtown. Land use designations specify which land uses are allowed in a specific area. Zoning regulations define physical building standards for regulating development, i.e., building height limits, ground floor setbacks (on the front, rear and sides of lots), lot sizes, and building density.

General Plan Land Use Designations

The following is a list of the predominant land use designations in the Planning Area (see **Figure 4.H-2**).

Downtown Commercial (DC) is the predominant land use designation for Downtown Napa. The designation applies to the historic commercial area and provides for retail, administrative and other offices; institutional, recreational, entertainment, arts and cultural uses; hotels, conference facilities, transportation and communication facilities; public and quasi-public uses; and similar and compatible uses. Higher-density residential uses and mixed residential/commercial uses are also permitted. Residential densities range from 20 to 40 units per acre. The maximum floor area ratio (FAR) is 1.25; however, an increase up to 4.0 and densities up to 45 units per acre may be allowed on a case by case basis at the discretion of the City, provided the project is compatible with the massing and character of surrounding commercial activities, does not compromise key views in the downtown, and does not impact the historic qualities of any structure or feature in the downtown.

The Oxbow District east of Soscol Avenue is designated **Mixed-Use (MU)**. The MU designation provides for a functionally-integrated mix of retail commercial, office, possible light manufacturing and attached residential uses. Cultural, hospitality, entertainment and visitor oriented uses that complement and support the Downtown are also allowed at appropriate locations. On key larger sites, a mix of uses, including residential, is strongly encouraged and may be required. On smaller sites, individual uses may be approved, but there is to be a mix of uses in the surrounding area, and creative mixed-use projects are encouraged. Residential densities range from 20 to 40 units per acre. FAR up to 2.0 is allowed.

The southern portion of Downtown is designated **Residential Office (RO)**. This designation applies to mixed residential/office areas and provides for residential uses and offices oriented to business and professional services, live/work, a mix of residential and office uses, bed and breakfast inns, and public and quasi-public uses. This designation is meant to encourage residential uses; office conversions of residential uses are discouraged. Residential densities up to 15 units per acre are allowed. FAR up to 0.40 is allowed.

Government and community uses in Downtown, such as the City Hall, County Complex and the post office, are designated **Public Serving (PS)**. This designation provides for public and quasi-public sites dedicated to community-serving purposes, such as government offices and related community service facilities; city-wide and community parkland; public schools of all levels and private schools with a significant enrollment; and public health facilities. Conference, exhibition, entertainment and other public gathering uses may also occur in large facilities. FAR up to 0.40 is allowed.

Zoning Districts

The zoning districts correspond to the General Plan land use designations, but include further differentiation as to the types of land uses allowed under each designation. Much of the City's historic commercial core is zoned **Downtown Commercial (CD)**. The CD zone provides for retail, administrative and other office uses; institutional, recreational, entertainment, arts and cultural uses; hotels, conference facilities, transportation facilities, public and quasi public uses; and similar uses that strengthen Downtown's role as the community's center. Residential development is encouraged as part of a mixed-use development, or as a separate use in some cases.

The **Downtown Pedestrian Commercial (CDP)** zone corresponds to an area along First Street from Franklin Street to Main Street, the Town Center and the west side of Main Street from First Street to Pearl Street. The CDP District provides for a pedestrian-oriented retail center in the heart of the Downtown commercial area. A mix of active retail and personal service uses are encouraged on the ground level, while office, residential and other supporting uses are encouraged at basement or upper levels.

The Oxbow area is zoned **Tourist Commercial (CT)**. The CT zone provides for uses that are oriented toward tourists and other visitors to the community. The district encourages lodging and their related amenities and recreational facilities. It also includes community and visitor-serving retail commercial, entertainment, restaurants and similar compatible uses. As the corresponding General Plan category is "mixed use," residential uses are also possible.

The southern portion of Downtown that is designated as **Residential Office (RO)** in the General Plan has a corresponding RO zoning. The RO designation applies to existing mixed residential and office areas, primarily along arterials and collectors. This district is intended to retain and encourage residential uses, and office conversions of existing residential uses are generally discouraged. Allowed uses include residential, offices oriented to provision of business and professional services, live/work, residential/office mixed-use developments, bed and breakfast inns, and public and quasi-public uses.

The properties designated as public-serving in the General Plan are zoned **Public/Quasi-Public (PQ)**, and provide for community-serving purposes such as government offices and related community service facilities; public schools and private schools with a significant enrollment; and major community health facilities. Conference, exhibition, entertainment and other public gathering uses may also occur in large facilities.

In addition to the base zoning districts, Downtown includes a number of overlay districts. These districts, described below, address technical and policy issues particular to different parts of Downtown. These include overlays for the parking exempt district, design guidelines for the Soscol Avenue / riverfront area, the flood plain, and high traffic corridors.

- In the Parking Exempt District (PE), projects are not required to provide onsite parking and loading spaces, except for residential uses. Businesses pay a surcharge on their business license fee to support construction and ongoing maintenance of public parking structures. Also, for residential projects located in the PE overlay district, guest parking is not required; off-site parking or use of on-street parking for a limited number of units (typically three or fewer) may be authorized by the Planning Commission with approval of a use permit.

- Development projects along the Downtown riverfront, Soscol Avenue, and the Oxbow District are subject to specific design guidelines outlined in the Soscol Corridor / Downtown Riverfront Design Guidelines (SC). Generally, the guidelines provide height bonuses of five feet for below-grade parking, or eight feet for pitched roofs, as well as greater setback flexibility to achieve the urban character objectives set forth in the plan. This overlay also requires a Use Permit for uses not listed as "desired uses" in the Soscol Guidelines.

- Projects in the Flood Plain Overlay (FP) are subject to engineering design criteria. Generally, the finished floor of new buildings must be elevated to at least one foot above base flood elevation, and attendant utilities and sanitary facilities must be constructed to resist flood damage. Commercial buildings may elect to flood proof buildings rather than raise the finished floor elevation.

Existing Land Use Policies and Designations

The City's General Plan contains goals and policies that aim to increase development in Downtown Napa and strengthen its role as the heart of the City. It describes Downtown as the civic and cultural center of the City, containing most City and County government offices, as well as the City's traditional retail and hotel uses along First and Main streets.

Goal LU-1: To maintain and enhance Napa's small-town qualities and unique community identity.

Policy LU-1.3. The city shall recognize downtown as an important asset of the city and seek to strengthen and revitalize it.

Goal LU-6: To improve the vitality and character of downtown through planning, design, business-community partnerships, and City programs and projects that encourage a variety of social, entertainment, cultural, retail, administrative, and government uses.

Policy LU-6.1. The City shall require retail and commercial uses to orient to the sidewalk or public spaces and to maintain an active street frontage in the pedestrian-oriented parts of downtown.

Policy LU-6.2. The City shall work with local preservation groups and downtown property owners to improve building facades and exteriors consistent with the historic and visual character of downtown.

Policy LU-6.3. The City shall promote the continued rehabilitation and reuse of historic downtown structures through financial assistance packages and other mechanisms, including assistance from the Napa Redevelopment Agency.

Policy LU-6.4. The City shall promote riverfront development that reorients downtown to the Napa River and shall encourage creative designs during the development review process.

Policy LU-6.5. The City shall provide for development of hotel and conference facilities in the downtown area. The City shall encourage any hotel developer to tie the facility to downtown and riverfront restoration through physical improvements and joint promotional involvement.

Policy LU-6.6. The City shall enhance public access to the downtown, including a stronger link to downtown residential neighborhoods, through improvements to directional signs, roads, transit, and pedestrian and bike trails along streets and the river.

Policy LU-6.7. The City shall promote 24-hour activity in the downtown, by allowing development that mixes residential and commercial uses in the same structures and supporting entertainment and cultural uses in the downtown.

Policy LU-6.8. The City shall identify key entry points and blighted conditions on the edges of downtown and support programs and projects that enhance downtown gateways and transitional zones between downtown and surrounding neighborhoods. The City shall seek to remove blighting conditions at key entry points to make downtown more inviting for residents and visitors.

Policy LU-6.9. The City shall support government and private projects that improve the public spaces of downtown to better serve the cultural, recreational and special event needs of the city. Where feasible and practical, the City shall promote integration of public open space with adjacent private business to create active environments.

Policy LU-6.10. The City shall continue to support development of public amenities along the Napa Riverfront such as parks, plazas, trails, docks and landscaping.

Policy LU-6.11. The City shall support appropriate infrastructure improvements for downtown, including those outlined in the Redevelopment Agency's Five-Year Implementation Plan.

Policy LU-6.12. The City and Redevelopment Agency shall prepare incentive programs and regulatory ordinances that stimulate public and private investment in the downtown.

Policy LU-6.13. The City shall support and encourage the development of art and cultural institutions in the downtown area.

Previous Plans and Guidelines

The following list summarizes the major plans and guidelines that the Specific Plan must incorporate and build upon:

Soscol Corridor / Downtown Riverfront Development and Design Guidelines – 2000

The Soscol Corridor / Downtown Riverfront Guidelines include specific guidelines and standards for parts of the Downtown along the Soscol corridor, and the riverfront including the Oxbow District (in addition to other areas outside the Planning Area). These guidelines were the City's first, intended to improve the Soscol entrance to and through downtown and to establish more refined subareas with different character.

Downtown Riverfront Urban Design Plan – 2003

The Riverfront Plan was created to address design and planning implications associated with the Napa River Flood Protection Project, including those portions of the river within Downtown. The plan provides guidance for riverfront revitalization through the design of development projects. The plan provides guidance for development along the riverfront, such as public spaces, pedestrian ways and downtown-oriented amenities.

Some of the concepts have already been realized with projects, such as the Riverfront mixed-use project, Upper Promenade, and Veteran's Memorial Park. Other concepts for sites such as the CineDome have yet to be realized, and will be revisited as part of the Specific Plan.

City of Napa Residential Design Guidelines – 2004

Napa's Residential Design Guidelines provide overall qualitative criteria for residential and residential mixed-use projects throughout the city.

Downtown Napa Mixed-Use and Residential Infill Development Strategy – 2004

The Infill Development Strategy is an implementation-oriented plan intended to encourage mixed-use development Downtown and a variety of housing types and options. The plan identified opportunity sites; provided specific market information to test the feasibility of mixed-use and infill residential development; described an overall urban design vision; and provided an implementation plan to facilitate mixed-use and residential development Downtown. The Infill Development Strategy identifies urban design concepts and principles important to implementing the community's vision of a livable Downtown. Some of the plan's strategies have been implemented, such as more urban parking standards and a slight increase in allowable density of residential units in Downtown to make projects more economically feasible. Other aspects of the plan are ongoing and will be revisited as part of the Specific Plan.

Napa River Parkway Master Plan – 2005

This Plan focuses on the importance of the River as a recreational corridor and transportation alternative with trail development, boat dock and related fishing, boating and wildlife observation opportunities.

Napa City-Wide Historic Context Statement – 2009

The Napa City-Wide Historic Context Statement is a survey of the City's areas of historic properties and a prioritization of those areas to guide future assessment and evaluation of properties and to encourage the preservation of Napa's rich heritage. The Statement provides a general history of the City of Napa from pre-history to the present, and encourages efforts to survey and identify historic properties throughout the City. This document provides a rich background from which to understand and perceive the Downtown Planning Area's historic architectural context.

The City Hall Consolidation Plan – 2009

The Napa Consolidated City Hall and Asset Analysis Study was prepared to test the financial feasibility and strategies for possible consolidation of City administrative activities, which are currently located in several different City-owned and City-leased facilities. The study was intended to identify opportunities related to utilizing City-owned properties to support potential consolidation of City administrative functions. Objectives included identifying real estate assets and disposition strategies to support financing a new City Hall, reviewing space needs and operational advantages for consolidating and centralizing City services, studying site options in the context of other opportunity sites, and establishing a conceptual cost estimate and financing strategy. The planning process included reviewing potential reuse of an existing commercial building as an interim or permanent City Hall building, as well as exploring potential consolidation options for a new City Hall on one of three potential sites.

Impacts and Mitigation Measures

Significance Criteria

CEQA *Guidelines* Appendix G suggests that the project would have a significant land use impact if it would:

a) physically divide an established community;

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

c) conflict with any applicable habitat conservation plan or natural community conservation plan.

Approach to Analysis

This EIR analysis evaluates the land use changes proposed by the Downtown Napa Specific Plan in terms of their compatibility with existing land uses adjacent to, and in proximity to, the Planning Area. Proposed changes were also compared to existing plans and policies applicable to the Planning Area.

Impacts and Mitigation Measures

Impact 4.H-1: Development facilitated by the Specific Plan could potentially result in the physical division of an established community. (Less than Significant)

The proposed Specific Plan is a regulatory program, not a physical development project. The proposed land use designations described in the Specific Plan would not create any new physical barriers in Downtown. There are no major planned roadways, such as freeways, that would divide Downtown, or individual neighborhoods or subareas.

Conversely, the proposed Specific Plan includes objectives that would increase connectivity within Downtown. These include development of a human-scale, pedestrian-friendly environment; cultivation of a multi-modal transportation network incorporating pedestrians, bicycles, public transportation, as well as automobiles; and creation of linkages to and between public gathering spaces, parks, and the Napa River.

Specifically, the Specific Plan presents alternatives for road realignment/rerouting that would improve overall circulation throughout Downtown. The conversion of multiple streets from one-way to two-way would reduce the confusing circulation pattern and provide more routes to and through Downtown. The Specific Plan also includes recommendations for enhancing the north-south and east-west connectivity of the bicycle network, such as new bike routes and lanes and a bicycle/pedestrian bridge over Napa Creek.

The Specific Plan would also concentrate intensive commercial development in a new Downtown Core Commercial land use designation within the primary existing retail area, and provide for sensitive transition to adjacent residential areas that surround the Planning Area. This would be accomplished by surrounding the Downtown Core with a new Downtown Mixed-Use designation that would allow for stand-alone housing mixed with neighborhood-serving retail uses. Another new land use designation, Downtown Neighborhood, is intended to create an additional transition between the more intensive, commercially-oriented uses in the center of Downtown and the residential neighborhoods that surround it. Less intensive commercial and office uses compatible with residential neighborhoods would be allowed in this area that borders more predominantly residential areas located outside the Planning Area. Thus, new land uses proposed by the Specific Plan would not result in divisions either within Downtown or with adjacent neighborhoods adjacent to Downtown. Implementation of the Specific Plan would result in a less than significant impact regarding the physical division of an established community.

Mitigation: None Required.

Impact 4.H-2: The Specific Plan could potentially conflict with applicable land use plans or policies adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

Conflicts between a project and applicable policies do not constitute significant physical environmental impacts in and of themselves. A General Plan contains many policies that may address different goals. A policy inconsistency is considered a significant adverse environmental impact only when it is related to a policy adopted for the purpose of avoiding or mitigating an environmental effect, and it is anticipated that the inconsistency would result in a significant adverse physical impact based on the established significance criteria. To the extent that the proposed Specific Plan would conflict with a General Plan policy, those potential physical conflicts are noted in the EIR's impact analysis sections (e.g., *Biological Resources, Hydrology and Water Quality*, etc.).

The compatibility of the proposed Specific Plan with General Plan policies that do not relate to physical environmental issues would be considered by decision-makers as part of their decision whether to approve or disapprove the Specific Plan. The Planning Commission and the City Council, in considering whether to approve the proposed Specific Plan, would determine whether the Specific Plan, on balance, is consistent with most of the applicable objectives and policies of the General Plan.

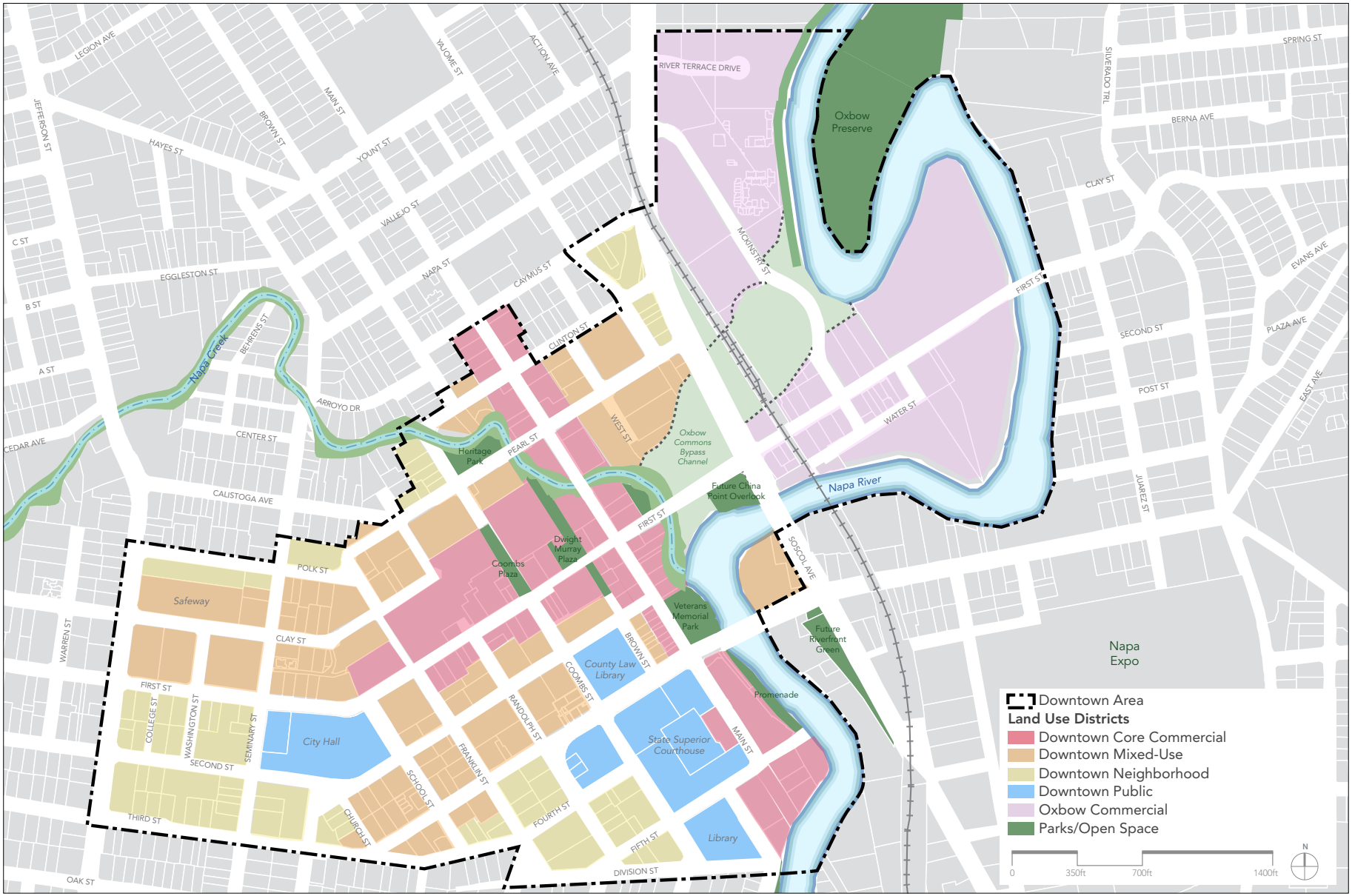
The purpose of the proposed Specific Plan is to provide a comprehensive guide for future public and private investment in Downtown Napa. The Specific Plan builds upon the existing General Plan goals and policies that aim to increase development in Downtown and strengthen its role as the heart of the City. The Specific Plan would alter allowable densities, allowing higher densities in some areas, through increased building height limits in the core of the Downtown, and decreasing densities by lowering allowable heights in areas extending outward from the core. In addition, the Specific Plan outlines development standards such as building setbacks to provide space for outdoor dining opportunities and plazas that allow for increased pedestrian activity.

Proposed Land Use Districts

The land use strategy for the Specific Plan would allow greater flexibility for a mix of uses in Downtown and promote a variety of commercial, office, residential, and entertainment uses. The following new land use districts are proposed by the Specific Plan (see **Figure 4.H-3**).

Downtown Core Commercial – This land use designation provides for a pedestrian-oriented retail center in the heart of the Downtown commercial area. The district provides for a mix of active ground-level retail and personal service uses, while office, residential, and other supporting uses are accommodated at upper levels. The Downtown Core Commercial district is centered on Main Street and First Street.

Downtown Mixed-Use – The intent of this land use designation is to accommodate a mix of uses that is less intensive than in the Downtown Core Commercial area and more oriented to neighborhood needs. The district provides for retail; administrative and other offices; institutional; recreational; entertainment, arts and cultural uses; hotels and conference facilities; transportation



SOURCE: MIG

Figure 4.H-3
Specific Plan Land Use Designations

facilities; public and quasi-public uses; and similar uses that strengthen Downtown's role as the community's center. The Downtown Mixed-Use district also encourages residential uses in Downtown primarily as part of a mixed-use development. This district surrounds the Downtown Core Commercial district north of Fourth Street and east of Jefferson Street.

Downtown Neighborhood – This land use designation is intended to create a transition between the more intensive, commercially-oriented uses in the center of Downtown and the residential neighborhoods that surround Downtown. It provides for a compatible mix of residential and office uses including residential uses; offices oriented to provision of business and professional services; live/work; residential/office mixed-use developments; bed and breakfast inns; and public and quasi-public uses. This land use designation is generally located in the southern and western areas of Downtown. It generally corresponds to the existing Residential/Office (RO) land use designation, but also includes the area north and west of Seminary Street.

Downtown Public – This land use designation provides for public and quasi-public properties dedicated to community serving purposes, such as government offices and related community service facilities. The Downtown Public district also provides for appropriately located public lands devoted to public open spaces and trails. The County Courthouse complex and adjoining libraries, as well as City Hall, are located in the Downtown Public district. This land use designation generally coincides with the existing Public Serving (PS) designation.

Oxbow Commercial – This land use designation provides for uses oriented particularly toward tourists. The district encourages lodging and its related amenities and recreational facilities; community and visitor-serving retail; commercial; entertainment; restaurants; and similar compatible uses. Visitor-serving retail uses that emphasize viticulture are also appropriate. The Oxbow Commercial district is located east of Soscol Avenue and is currently designated as Mixed Use (MU).

Entertainment District Overlay – This overlay district encourages entertainment uses centered on Main Street between Clinton Street and the Hatt Building at Fifth Street. Within the Entertainment Overlay District, a streamlined administrative permit process would allow for entertainment uses meeting designated performance standards.

Proposed Building Form Zones

The Specific Plan outlines development standards through proposed Building Form Zones that include requirements regarding floor area ratio (FAR), density, parking, setbacks, and height. The boundaries of each Building Form Zone do not correspond exactly to the land use districts. Two separate blocks may provide the same allowed land uses but have different property development standards in order to reflect differences in neighborhood scale and context. There are three proposed Building Form Zones in the Planning Area:

Downtown I – This zone would allow the most intensive development at the very center of Downtown, north of First Street and running from the intersection of First and Main streets west to School Street. Residential density of 20 to 60 dwelling units per acre (du/ac) would be allowed.

Downtown II – This zone encompasses most of Downtown except for the core and edges. It includes all land east of the Napa River. Residential density of 20 to 40 du/ac would be allowed.

Transition – This zone encompasses blocks or half-blocks between the downtown core and residential neighborhoods surrounding the Specific Plan area. Residential density of 10 to 25 du/ac would be allowed.

Overall, the proposed land use districts would not represent a substantial departure from the existing controls such that incompatible land uses would be developed. In general, it is anticipated that future development allowed by these new districts would result in a more cohesive Downtown core commercial area that transitions to mixed-uses and residential areas extending outward to the residential neighborhoods surrounding Downtown. Likewise, the density would be concentrated in the core, and would transition to less dense as it transitioned into the adjacent neighborhood. This is a departure from the allowed density under the existing zoning which applied a flat density rate throughout downtown. The proposed Specific Plan would provide development guidelines to guard surrounding neighborhoods from incompatible densities.

Development facilitated by the Specific Plan would not conflict with any applicable land use policies adopted for the purpose of avoiding or mitigating an environmental effect. Subsequent actions required for implementation of the Specific Plan include amendment of the City's General Plan and Land Use Map and amendment of the City's Zoning Code and Maps to ensure consistency with the Specific Plan's land uses. Adoption of these amendments would ensure that impacts regarding land use plans and policies would be less than significant.

Mitigation: None Required.

Impact 4.H-3: Implementation of the Specific Plan could potentially conflict with any applicable habitat conservation plan or natural community conservation plan. (Less than Significant)

The Downtown is not located within, or in proximity to, an area guided by a Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, development facilitated by the proposed Specific Plan would not conflict with such plans.

Mitigation: None Required.

Cumulative Impact

Impact 4.H-4: Development facilitated by the Specific Plan, combined with other past, present, existing, approved, pending, and reasonably foreseeable future plans or projects in the area, could potentially result in a significant adverse cumulative land use impact. (Less than Significant)

Insofar as cumulative effects must be considered in relationship to policies or regulations that apply citywide, the cumulative geographic context for land use, plans, and policy considerations for the development facilitated by the proposed Specific Plan consists of the Planning Area in addition to all areas of the City of Napa.

As analyzed in this section, development facilitated by the proposed Specific Plan would not result in a significant land use impact by physically dividing an established community or by conflicting with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Development facilitated by the proposed Specific Plan is not located in or near an area guided by a habitat conservation plan or natural community conservation plan. Thus, development facilitated by the Specific Plan would not combine with, or add to, any potential adverse land use impacts that may be associated with other cumulative development. Similarly, because development facilitated by the Specific Plan would not result in a conflict with a land use plan, policy or regulation in a manner that could result in a significant land use or planning effect, whether other present or future development would have such a conflict, the effect would not combine to create cumulative impact.

In addition, past projects have been, and present and reasonably foreseeable future projects would be, subject to development guidance contained within the General Plan and other applicable land use plans to ensure land use compatibility. Based on the information in this land use section and for the reasons summarized above, development facilitated by the Specific Plan would not contribute to any significant adverse cumulative land use impacts when considered together with past, present, pending and reasonably foreseeable development.

Mitigation: None Required.

References – Land Use and Planning

City of Napa, *Downtown Napa Mixed-Use and Residential Infill Development Strategy*, May 2004.

City of Napa, *Downtown Riverfront Urban Design Plan*, February 2003.

City of Napa, *Envision Napa 2020: General Plan*, 1998. Amended September 2009.

City of Napa, *Napa City-Wide Historic Context Statement*, September 2009.

City of Napa, *Napa Consolidated City Hall and Asset Analysis Study*, March 2009.

City of Napa, *Napa River Parkway Master Plan*, January 2005.

City of Napa, *Residential Design Guidelines*, November 2004.

City of Napa, *Soscol Corridor / Downtown Riverfront Development and Design Guidelines*, 2000.

4.I Noise and Vibration

This section provides an overview of the existing noise environment at the Planning Area and surrounding neighborhoods, the regulatory framework, and an analysis of potential noise impacts that would result from implementation of the Specific Plan, and mitigation measures where appropriate.

Setting

Noise Principles and Descriptors

Introduction

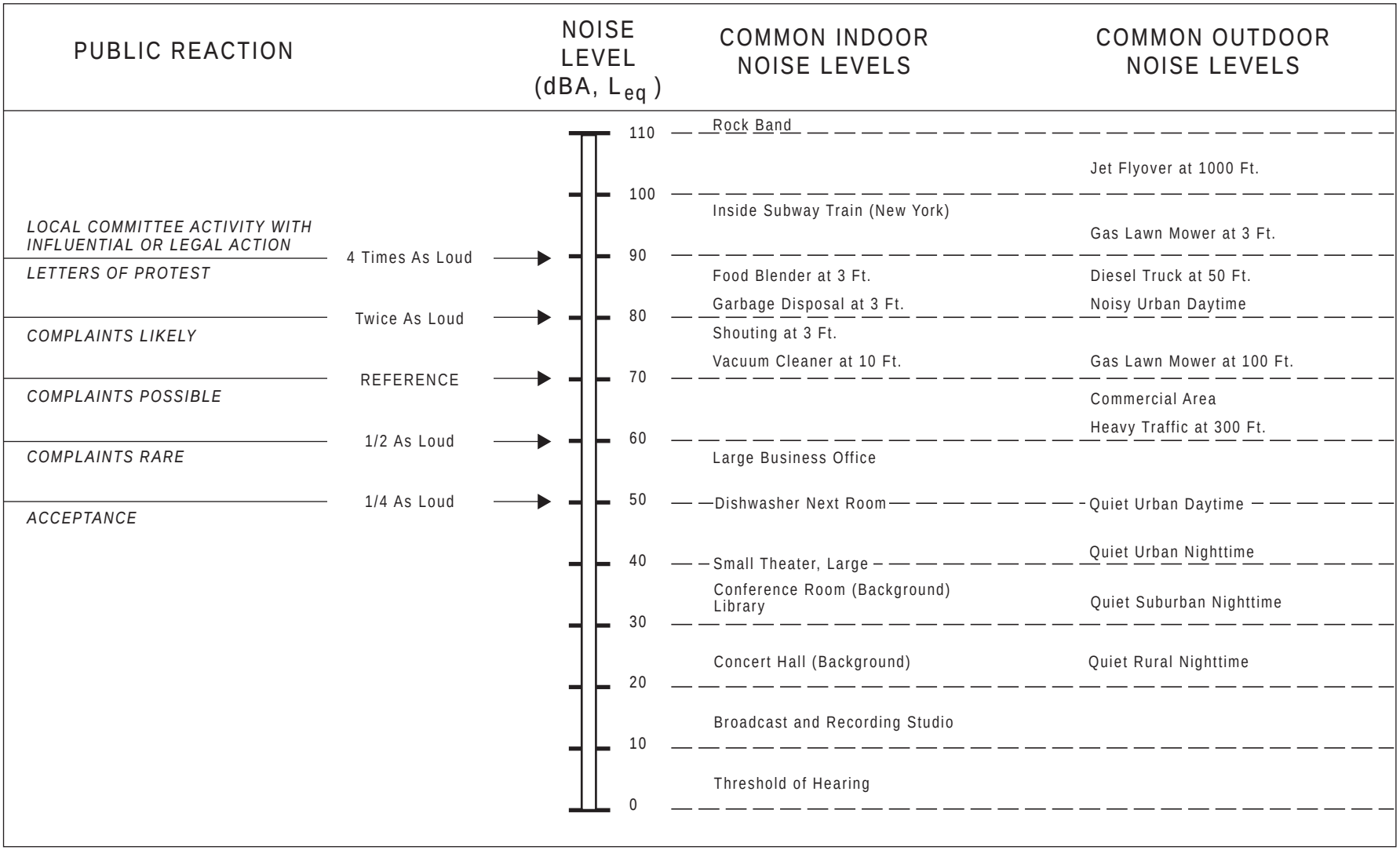
Noise is defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown in **Figure 4.I-1**.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. The noise levels presented in Figure 4.I-1 are representative of measured noise at a given instant in time, however, they rarely persist consistently over a long period of time. Rather, community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment.



SOURCE: ESA, 2007

Figure 4.I-1
Effect of Noise on People

Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment varies the community noise level from instant to instant requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: the equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

L_{max}: the instantaneous maximum noise level for a specified period of time.

L_{50}: the noise level that is equaled or exceeded 50 percent of the specified time period. The L_{50} represents the median sound level.

$L_{90:}$ the noise level that is equaled or exceeded 90 percent of the specified time period. The L_{90} is sometimes used to represent the background sound level.

DNL: 24-hour day and night A-weighted noise exposure level which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

Ldn: See DNL, the Ldn is the same as the DNL.

CNEL: similar to the DNL the Community Noise Equivalent Level (CNEL) adds a 5-dBA "penalty" for the evening hours between 7:00 p.m. and 10:00 p.m. in addition to a 10-dBA penalty between the hours of 10:00 p.m. and 7:00 a.m.

As a general rule, in areas where the noise environment is dominated by traffic, the L_{eq} during the peak-hour is generally equivalent to the DNL at that location (Caltrans, 1998).

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- *Interference with activities such as speech, sleep, and learning* – The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise

is fluctuating. Outdoors, the thresholds are about 15 dBA higher. Interior residential standards for multi-family dwellings are set by the State of California at 45 DNL. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses.

- *Subjective effects of annoyance, nuisance, and dissatisfaction* – Based on attitude surveys used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas, the main causes for annoyance are interference with speech, radio and television, house vibrations, and interference with sleep and rest. The DNL as a measure has been found to provide a valid correlation of noise level and the percentage of people annoyed. Three aspects of community noise are most important in determining subjective response – the level of sound, the frequency composition or spectrum of the sound, and the variation of sound level with time.

- *Physiological effects such as hearing loss or sudden startling* – While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise, but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants generally experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so called "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;

- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;

- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and

- A 10-dBA change is subjectively heard approximately as a doubling in loudness, and can cause adverse response

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence, the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in

a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

For any given noise source, the noise level naturally decreases as one moves further away from the source. This basic attenuation rate is referred to as the geometric spreading loss, and varies whether a given noise source can be characterized as a point or line source. For a point source, such as an idling truck or a piece of construction equipment, the noise level decreases by about 6.0 dB for each doubling of distance. In many cases, point source noise attenuation can increase by 1.5 dB (from 6.0 dB to 7.5 dB) for each doubling of distance due to ground absorption and reflective wave canceling. These factors are collectively referred to as excess ground attenuation. The lower excess ground attenuation rate (6.0 dB per doubling of distance) is used where the intervening ground between source and receiver is reflective, such as parking lots or smooth bodies of water. The higher excess ground attenuation rate (7.5 dB per doubling of distance) is used where the intervening ground is absorptive, such as soft dirt, grass, or scattered bushes and trees. For a linear noise source, such as a heavily traveled roadway, the sound level decreases by a nominal value of 3.0 dB for each doubling of distance between noise source and receiver. As with point sources, if the intervening ground between source and receiver is absorptive rather than reflective, the nominal rate changes by 1.5 dB for each doubling of distance to 4.5 dB (Caltrans, 1998).

Shielding effects from trees and vegetation, buildings, and barriers reduce the noise level that would otherwise occur at receiver locations due to geometric spreading loss and excess ground attenuation alone. However, for a vegetative strip to have a noticeable effect on noise levels, it must be dense and wide. For example, to attenuate traffic noise by 5 dB, a stand of trees must be at least 100 feet wide and dense enough to completely obstruct a visual path to the roadway. A row of structures can shield more distant receivers depending upon the size and spacing of the intervening structures and site geometry. Generally, for an at-grade highway in an average residential area where the first row of houses cover at least 40 percent of the total area, the reduction provided by the first row of houses is approximately 3 dB, with 1.5 dB for each additional row. Similar to vegetative strips discussed above, noise barriers, which include natural topography and soundwalls, reduce noise by interrupting the direct noise path along the line of sight between the source and receiver. Generally, a noise barrier that breaks the line of sight between source and receiver will provide at least a 5 dB reduction in noise.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. As described in the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment* (FTA, 2006), ground-borne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major

roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile driving and operating heavy earth-moving equipment.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the affect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly and sick), and vibration sensitive equipment.

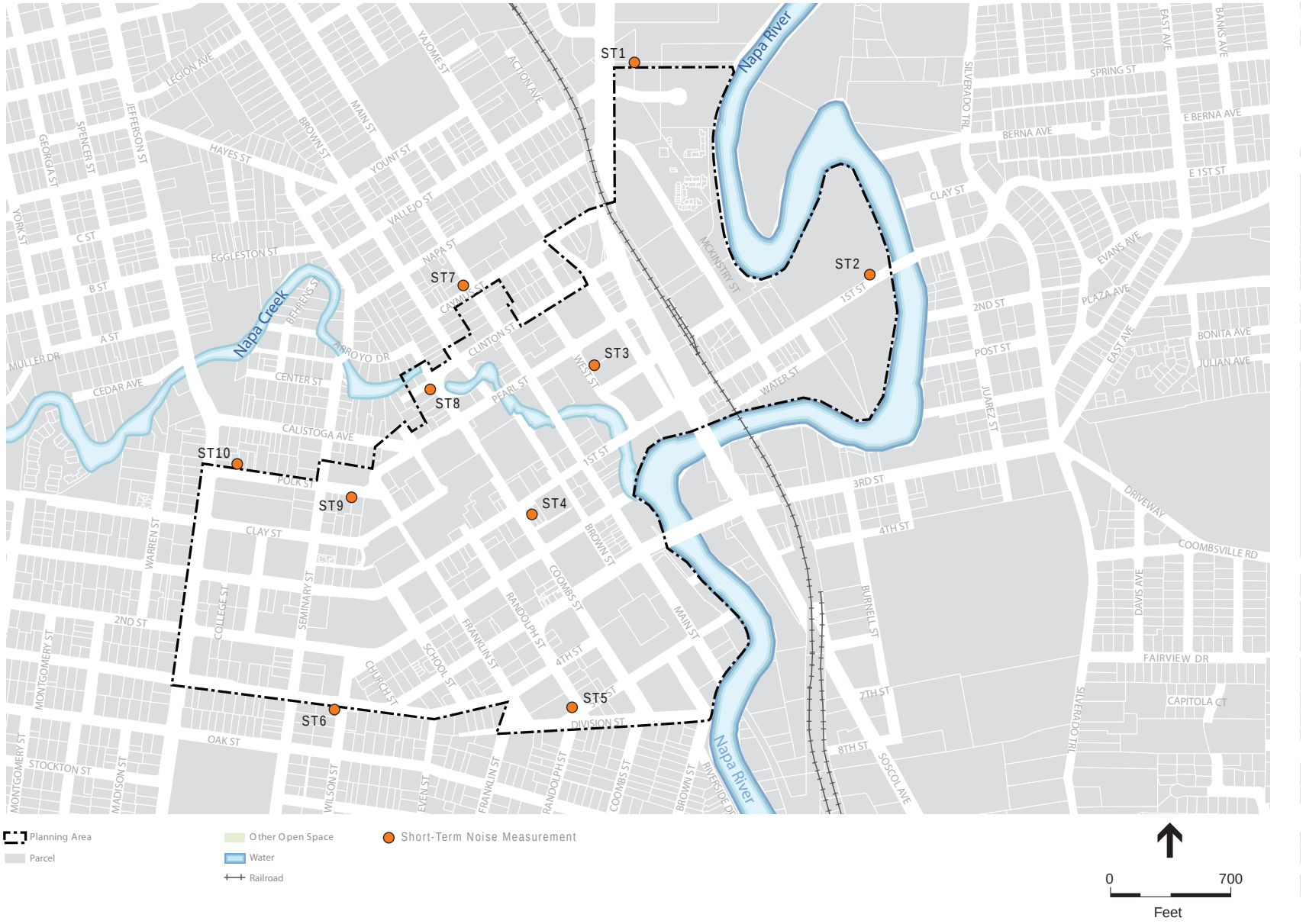
Existing Noise Environment and Sensitive Receptors

ESA used Metrosonics Model db3080 sound level meters for the short-term noise measurements. The meters were calibrated to ensure the accuracy of the measurements. Ten short-term (ST) noise level measurements were taken in the vicinity of the Planning Area to determine the existing noise level in the area. This noise survey was conducted to assess the significance of project-related noise impacts by comparing estimated project-related noise levels to existing noise levels. The data gathered from the meters includes all noise (background and intermittent noises) at the microphone and does not separate different audible sources. The noise measurement locations are shown on **Figure 4.I-2**, and the results are presented below in **Table 4.I-1**.

The existing noise environment is dominated largely by transportation noise including vehicles, buses, the Napa Wine Train, motorcycles, and an occasional airplane. Pedestrians and music coming from car stereos also contribute to the noise environment. No major noise sources are present.

Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, parks and other outdoor recreation areas generally are more sensitive to noise than are commercial (other than lodging facilities) and industrial land uses. The Planning Area includes a variety of land uses including commercial, residence office, the Oxbow mixed-use and public/quasi public.



SOURCE: MIG, 2009; and ESA, 2009

Figure 4.I-2
Noise Measurement Locations

TABLE 4.I-1
EXISITING NOISE ENVIRONMENT IN THE PROJECT VICINITY

Location	Time Period	Leq (dB)	Noise Sources
ST-1: Approximately 150 feet from Soscol Ave centerline, on River Terrace Drive	5 Minutes Tuesday, March 24, 2009 at 3:52pm	61	* Traffic on Soscol Ave. and River Terrace Dr. * Birds chirping * People talking quietly in nearby parking lot * Car over sewer grate (~72 dBA) * Trolley on River Terrace Dr (~74 dBA)
ST-2: Approximately 50 feet from 1st Street centerline, in Copia parking lot. Note: construction blocked 1st St., but no activity during measurement	5 Minutes Tuesday, March 24, 2009 at 4:09pm	49	* People talking in lot * Traffic in distance * Birds chirping * Wind through bushes * Airplane in distance
ST-3: Approximately 25 feet from West Street centerline, in front of Community Resources Bldg (1100 West St)	5 Minutes Tuesday, March 24, 2009 at 4:23pm	59	* Traffic in distance * Several pedestrians walking along West St. * Cars exiting Cinedome lot * Several pedestrians crossing West St. and talking loudly * Birds chirping
ST-4: Approximately 25 feet from Coombs St. centerline and 40 feet from 1st St. centerline	5 Minutes Tuesday, March 24, 2009 at 4:39pm	67	* Sirens in distance (~72 dBA) * Bicyclist pass-by * Traffic on 1st and Coombs * Squeaking brakes when cars stop at light * Music from passing cars * Talking pedestrians * Birds chirping
ST-5: Corner of 5th and Randolph, about 25 feet from each centerline, in front of the United Methodist Church (625 Randolph)	5 Minutes Tuesday, March 24, 2009 at 4:55pm	60	* Traffic on 5th, Randolph, and in distance * Car starting * Birds chirping * Wind through trees * Several pedestrians talking loudly as they walk by
ST-6: Corner of 3rd and Wilson, about 25 feet from each centerline, in front of 743 Wilson	5 Minutes Tuesday, March 24, 2009 at 5:10pm	63	* Traffic on 3rd St. * Several cars on Wilson * Music in passing cars
ST-7: Corner of Main St and Caymus, about 25 feet from each centerline, across street from St. John the Baptist School	5 Minutes Tuesday, March 24, 2009 at 5:28pm	72	* Traffic on Main and Caymus * A few kids in playground bouncing a ball * Several pedestrians walking by * Birds chirping * Motorcycle (~90 dBA)
ST-8: Corner of Coombs and Grigsby Ct, about 25 feet from each centerline, in front of Napa Center for Spiritual Living	5 Minutes Tuesday, March 24, 2009 at 5:37pm	58	* Traffic on Clinton to Coombs * Idling light-duty truck, ~100 feet away * Bus pass-by (~74 dBA) * Birds chirping * Traffic in distance
ST-9: Approximately 65 feet from Polk St. centerline, across from the Blue Oak School	5 Minutes Tuesday, March 24, 2009 at 5:46pm	62	* Traffic on Polk * Music in some passing vehicles * Birds chirping * Truck entered/exited parking lot * Airplane in distance
ST-10: Approximately 100 feet from Jefferson St. centerline and 25 feet from Polk St. centerline	5 Minutes Tuesday, March 24, 2009 at 6:05pm	61	* Traffic on Jefferson St. * Traffic on Polk St. * Birds chirping

SOURCE: ESA 2009

Regulatory Setting

Detailed below is a discussion of the relevant regulatory setting and noise regulations, plans and policies.

Federal Regulations

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 Code of Federal Regulations (CFR), Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

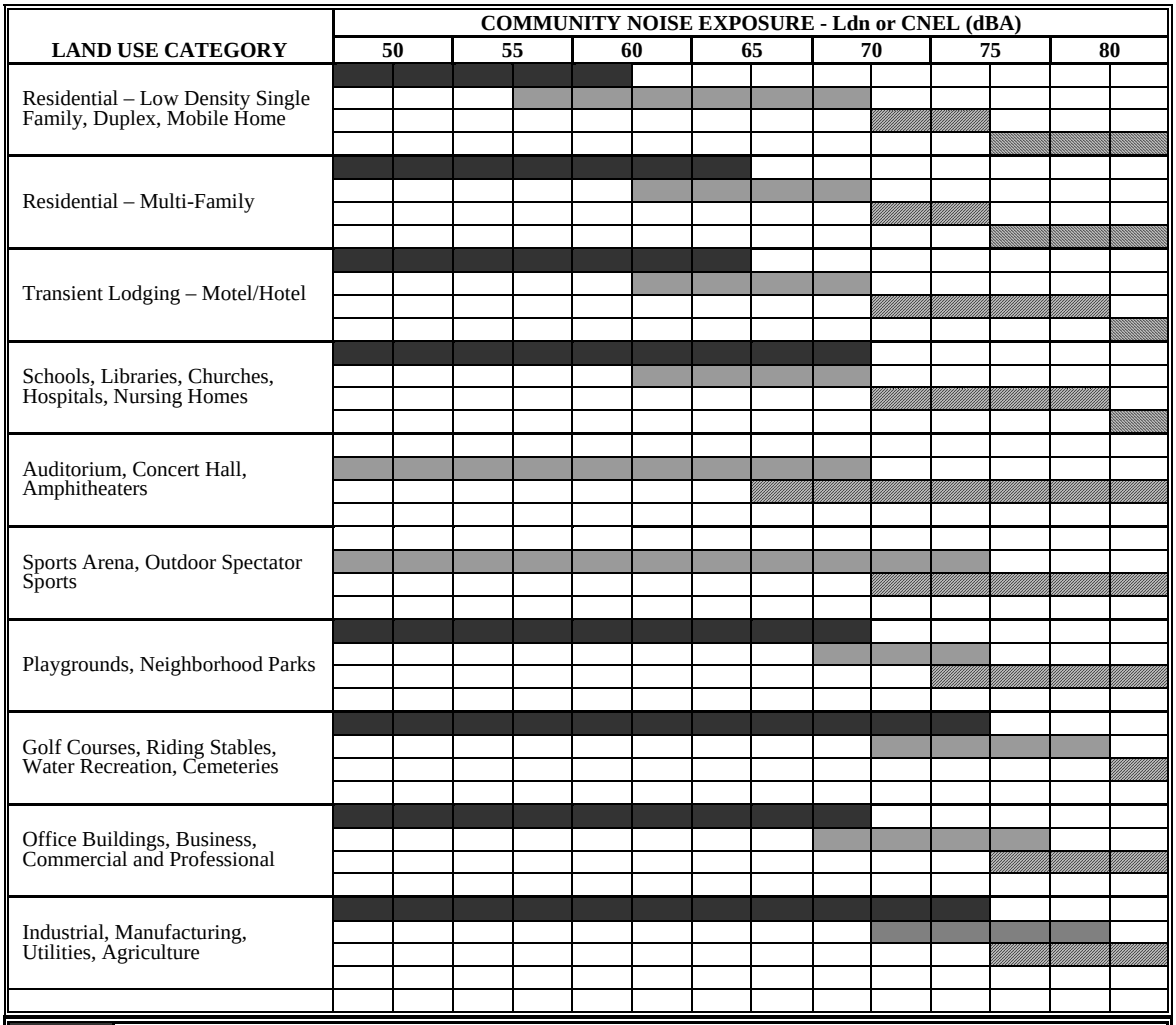
The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inches per second PPV and human annoyance response ground-borne vibration threshold level of 80 RMS (FTA, 2006). The effects of ground-borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

State Regulations

The State has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure, as shown in **Figure 4.I-3**. The State of California also establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State pass-by standard is consistent with the federal limit of 80 dB. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dBA at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of DNL 45 dBA in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than DNL 60 dBA. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

FIGURE 4.I-3
LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENT



	Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
	Clearly Unacceptable	New construction or development generally should not be undertaken.

SOURCE: State of California, Governor's Office of Planning and Research, 2003. *General Plan Guidelines*. October 2003.

Local

In California, local regulation of noise involves implementation of general plan policies and Noise Ordinance standards. Local general plans identify general principles intended to guide and influence development plans, and Noise Ordinances set forth the specific standards and procedures for addressing particular noise sources and activities. General plans recognize that different types of land uses have different sensitivities toward their noise environment; residential areas are considered to be the most sensitive type of land use to noise and industrial/commercial areas are considered to be the least sensitive.

City of Napa General Plan

The City's General Plan recognizes noise pollution as a significant source of environmental degradation. The *Envision Napa 2020, Health and Safety Element* (City of Napa, 1998) identifies community noise goals and establishes policies to reduce noise pollution. The General Plan goals and policies applicable to development facilitated by the Specific Plan include:

> **Goal HS-9:** To protect Napa's residents, workers and visitors from the deleterious effects of noise.
>
> > ***Policy HS-9.1*.** The City shall require new development to meet the exterior noise level standards set out in Figure 4.I-3. For residential areas, these exterior noise guidelines apply to backyards; exceptions may be allowed for front yards where overriding design concerns are identified.
> >
> > ***Policy HS-9.2*.** The City shall use CEQA and the development review processes to ensure that new development does not exceed City standards.
> >
> > ***Policy HS-9.3*.** The City shall use traffic management techniques to reduce the level of noise in residential neighborhoods to "normally acceptable," as shown in Figure 4.I-3.
> >
> > ***Policy HS-9.4*.** The City shall support state and federal legislation regulating noise produced by motor vehicles.
> >
> > ***Policy HS-9.5*.** The City shall continue to enforce state muffler and exhaust laws.
> >
> > ***Policy HS-9.6*.** The City shall use the development and building permit review processes to site new construction in ways that reduce noise levels.
> >
> > ***Policy HS-9.7*.** The City shall encourage the clustering, where appropriate, of residential development in order to provide open space that can be used to distance residences from noise sources.
> >
> > ***Policy HS-9.8*.** The City shall respond to noise complaints by suggesting noise mitigation measures, and using code enforcement procedures when necessary.
> >
> > ***Policy HS-9.9*.** When feasible and appropriate, the City shall limit construction activities to that portion of the day when the number of persons occupying a potential noise impact area is lowest.

Policy HS-9.10. The City shall encourage new development to maintain the ambient sound environment as much as possible. The City shall require new transportation-related noise sources that cause the ambient sound levels to exceed the compatibility standards in Figure 4.I-3 to incorporate conditions or design modifications to reduce the potential increase in the noise environment.

Policy HS-9.11. The City shall regulate construction in a manner that allows for efficient construction mobilization and activities, while also protecting noise sensitive land uses.

Policy HS-9.12. The City shall evaluate and modify as necessary the City's designated truck routes to minimize noise impacts for sensitive land uses.

Policy HS-9.13. The City shall require new residential projects to provide for an interior CNEL of 45 db or less due to exterior noise sources.

Policy HS-9.14. The City shall encourage new development to identify alternatives to the use of sound walls to attenuate noise impacts. Appropriate techniques include site planning such as incorporating setbacks, revisions to the architectural layout such as changing building orientation to provide noise attenuation for portions of outdoor yards, and construction modifications. In the event that sound walls are the only practicable alternative, such walls should be designed to be as visually pleasing as possible, incorporating landscaping, variations in color and patterns, and/or changes in texture or building materials.

City of Napa Noise Ordinance

The City of Napa Noise Ordinance is codified in Title 8, Chapter 8, Section 8.08 of the City's Municipal Code. The following sections present noise standards that may be applicable to the projects facilitated by the Specific Plan.

8.08.010 Outdoor Sound Systems – Permit Required

It shall be unlawful for any person to operate a loudspeaker, public address system or sound amplification system if such loudspeaker, public address system or sound amplification system can be heard outside any building, save and except as follows:

A. If said loudspeaker, public address system or sound amplification system is to be operated from an automobile between the hours of nine a.m. and nine p.m., a permit to so operate or play the same must first be obtained from the city manager as hereinafter stated;

B. If said loudspeaker, public address system or sound amplification system is to be operated other than from an automobile at any time of the day or night, such operation must first be approved by the city manager;

C. If said loudspeaker, public address system or sound amplification system is to be operated in connection with the playing of a musical instrument for fewer than three days in a one year period, such operation must first be approved by the city manager;

D. If said loudspeaker, public address system or sound amplification system is to be used in connection with a parade or filming operation for which a permit has been obtained, this section shall not be applicable;

E. If said loudspeaker, public address system or sound amplification system is used in connection with a use for which a permit has been obtained pursuant to Title 17 of this code, this section shall not be applicable.

8.08.020 Noise – Commercial Activity

A. Between the hours of 9:00 p.m. and 7:00 a.m., no commercial activity shall be conducted upon any privately owned real property within the city, which activity creates noise which can be heard at the property line of any parcel of real property within the city which bears an RP, residential/professional office district, or more restrictive zoning designation, as provided in Title 17 of this code unless a permit shall first have been secured from the city manager pursuant to Section 2.08.050 of this code. The city manager shall grant such permit if it reasonably appears that (1) the activity is otherwise permitted under this code and (2) the benefit to be derived by the applicant from conducting such activity at the time and place specified in the application outweighs the detriment to be suffered by the neighborhood, by neighboring residents, and by the city generally. The collection of garbage and trash pursuant to Chapter 5.60 of this code is expressly exempt from the provisions of this section.

B. This section shall not apply to any commercial activity subject to the provisions of Section 8.08.010.

8.08.025 Noise – Construction Activity

Any person engaged in construction activity, other than construction activity on an existing residential unit which such person owns or rents, pursuant to any provision of this code, shall limit said construction activity as follows:

A. Construction activities throughout the entire duration of the project shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday. There will be no start up of machines nor equipment prior to 8:00 a.m., Monday through Friday; no delivery of materials nor equipment prior to 7:30 a.m. nor past 5:00 p.m., Monday through Friday; no cleaning of machines nor equipment past 6:00 p.m., Monday through Friday; no servicing of equipment past 6:45 p.m., Monday through Friday; and construction on weekends or legal holidays shall be limited to the hours of 8:00 a.m. to 4:00 p.m., unless a permit shall first have been secured from the city manager, or his/her designee, pursuant to section 8.08.050 of this code. The city manager, or his/her designee, shall grant such permit:

   1. For emergency work;

   2. Other work, if work and equipment will not create noise that may be unreasonably offensive to neighbors as to constitute a nuisance; or

   3. If necessary to protect the public health, safety, and welfare.

B. All muffler systems on construction equipment shall be properly maintained.

C. All construction equipment shall not be placed adjacent to developed areas unless said equipment is provided with acoustical shielding.

D. All construction and grading equipment shall be shut down when not actively in use.

E. Construction activity by or on behalf of a public agency, which is necessary to avoid a disruption of a public project or to protect the public health, safety, and welfare, shall be exempt from the time limitations of this section.

F. As a separate, distinct, and cumulative remedy established for a violation of section 8.08.025, the police and/or the code enforcement officer may issue a stop work order for violation of section 8.08.025. Such order shall become effective immediately upon posting of the notice. After service of the stop work order, no person shall perform any act with respect to the subject property in violation of any of the terms of the stop work order, except such actions the City determines are reasonably necessary to render the subject property safe and/or secure until the violation has been corrected.

Impacts and Mitigation Measures

Significance Criteria

Implementation of the Specific Plan would result in a significant impact on the noise environment if it results in:

a) Conflict with land use compatibility guidelines for land uses contained in the Napa General Plan (shown in Figure 4.I-3); noise levels at new receptors that would be above the “normally acceptable” level are considered in conflict with the compatibility guidelines.

b) Increased noise along existing and new roadways to levels that exceed 65 Ldn ("normally acceptable"), as shown in Figure 4.I-3 and a traffic noise increase of at least 3 dBA.

c) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;

d) Exposure of people residing or working in the Planning Area to excessive noise levels within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, or a private airstrip;

The final criteria will not be addressed since there are no airport land use plans, public or private airports of airstrips within five miles of the Planning Area.

Impacts and Mitigation Measures

Impact 4.I-1: Development facilitated by the Specific Plan could potentially result in substantial temporary or periodic increases in ambient noise levels in the Planning Area. (Significant before Mitigation)

Future noise levels related to construction within and adjacent to the Planning Area would fluctuate depending on the particular type, number and duration of uses of various pieces of construction equipment. Construction activities could involve excavation, grading, demolition,

drilling, trenching, earth movement, and vehicle travel to and from the project site. The Specific Plan would facilitate the development of new retail, office, residential, restaurant, flexible space and hotels. Presumably, all of these projects would involve some heavy construction or truck activity. Noise from machinery or equipment is a potentially significant impact, especially near sensitive receptors.

Construction equipment is typically diesel powered, and is used to excavate, transport heavy materials, and remove debris and waste. Construction noise is typically short-term, but can be very loud. **Table 4.I-2** shows typical exterior noise levels at various phases of commercial construction, and **Table 4.I-3** shows typical noise levels associated with various types of construction related machinery.

TABLE 4.I-2
TYPICAL CONSTRUCTION PHASE NOISE LEVELS

Construction Phase	Noise Level (dBA, Leq)[1]
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

[1] Average noise levels 50 feet from the noisiest source and 200 feet from the rest of the equipment associated with a given construction phase. Noise levels correspond to commercial projects in a typical urban ambient noise environment.

SOURCE: Bolt, Beranek and Newman, U.S. EPA, 1971. Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, 1971.

TABLE 4.I-3
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Level (dBA, Leq at 50 feet)
Dump Truck	88
Portable Air Compressor	81
Concrete Mixer (Truck)	85
Scraper	88
Jack Hammer	88
Dozer	87
Paver	89
Generator	76
Pile Driver	101
Rock Drill	98
Pump	76
Pneumatic tools	85
Backhoe	85

SOURCE: Cunniff, 1977, Bolt *et al.*, 1971.

Implementation of the following Policies in the *Health and Safety Element* of the Napa General Plan would reduce the potential for excessive noise from construction activities and Downtown development: Policy HS-9.1, HS-9.2, HS-9.6, HS-9.7, HS-9.8, HS-9.9, HS-9.10, HS-9.11, HS-9.13, HS-9.14. However, without mitigation, construction noise impacts could be significant.

To reduce construction noise impacts to less-than-significant levels, **Mitigation Measures 4.I-1a through 4.I-1c** would be incorporated into future projects within the Planning Area.

Mitigation Measure 4.I-1a: Construction contractors for subsequent development projects within the Planning Area shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, etc.) when within 400 feet of sensitive receptor locations. Additional techniques shall include, but not be limited to the following noise control elements:

- Non-residential construction project activities (Monday through Friday) shall be limited to the hours of 7:00 a.m. to 7:00 p.m. with no start up of machines or equipment prior to 8 a.m. No delivery of materials nor equipment shall occur prior to 7:30 a.m. or after 5:00 p.m. No cleaning of machines or equipment shall occur after 6:00 p.m. No servicing of equipment shall occur past 6:45 p.m. Construction of weekends and holidays shall be limited to the hours of 8:00 a.m. to 4:00 p.m., unless a permit allows otherwise.

- Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler shall achieve lower noise levels from the exhaust by approximately 10 dBA. External jackets on the tools themselves shall be used where feasible in order to achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible;

- All construction equipment shall not be placed adjacent to developed areas unless said equipment is provided with acoustical shielding.

- Signs shall be posted at all construction site entrances to the property upon commencement of project construction, for the purposes of informing all contractors and subcontractors, their employees, agents, materialmen, and all other persons at the construction site, of the basic requirements of Mitigation Measures 4.1-a through 4.1-c.

Mitigation Measure 4.I-1b: Should pile-driving be necessary for a proposed project, the project sponsor would require that the construction contractor limit pile driving activity to the least disturbing hours of the day. To further mitigate pile driving and/or other extreme noise-generating construction impacts, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. No extreme noise-generating activities shall be allowed on weekends and holidays. Techniques included may include but not be limited to the following:

- Erect temporary plywood noise barriers around the construction site,

- Implement "quiet" pile-driving technology (such as pre-drilling of piles and the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;

- Use noise control blankets on building structures as buildings are erected to reduce noise emission from the site;

- Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings; and

- Monitor the effectiveness of noise attenuation measures by taking noise measurements.

Mitigation Measure 4.I-1c: The City shall condition approval of projects in the Planning Area near receptors sensitive to construction noise, such as residences and schools, such that, in the event of a justified complaint regarding construction noise, the City would have the ability to require changes in the construction practices to address the noise complaints.

Significance after Mitigation: Less than Significant.

Impact 4.I-2: Development facilitated by the Specific Plan could potentially increase ambient noise levels along roadways within the Planning Area due to greater auto and truck traffic volumes. (Less than Significant)

Increased traffic volumes and congestion on local roadways, coupled with roadway improvements proposed in the Specific Plan, could increase traffic noise levels. Noise contours for year 2035 were developed, based on traffic modeling for the proposed Specific Plan (Kimley-Horn, 2011). These noise contours are listed by distance from the road centerline to the 60 dBA and 65 dBA, contours in **Table 4.I-4**.

The Planning Area is restricted to a slow-moving street network. Some, but not all road segments are predicted to produce noise levels above 65 Ldn, the "normally acceptable" limit of the Land Use Compatibility Plan (Figure 4.I-3). However, existing conditions at the busiest road segments (segments along: Soscol Avenue, Second St., Silverado Trail, California Blvd.) currently produce noise levels above 65 Ldn. For the road segments that are predicted to be above 65 Ldn, existing and existing plus cumulative (2035 no Plan) traffic noise levels were calculated. No road segment predicts a future increase in traffic noise levels by more than 3 dBA from 2035 no Plan to 2035 with the Plan. The predicted increase in traffic noise is therefore considered a less than significant impact.

Mitigation: None Required.

TABLE 4.I-4
PEAK HOUR TRAFFIC NOISE CONTOURS FOR SELECTED ROADS, 2035[1,2]

	Roadway Segment	Predicted 2035 – 50 feet from Road Centerline	65 dBA - Distance from Road Centerline (ft)	60 dBA - Distance from Road Centerline (ft)
1	Jefferson north of 1st	66.3	61	132
2	Jefferson south of 1st	66.6	64	138
3	First east of Jefferson	62.5	-	73
4	First west of Jefferson	62.7	-	76
5	Main St. north of Pearl St.	62.4	-	72
6	Main St. south of Pearl St.	62.9	-	78
7	Pearl St. east of Main St.	62.9	-	78
8	Pearl St. west of Main St.	62.0	-	68
9	Soscol north of Pearl St.	68.1	80	173
10	Soscol south of Pearl St.	68.1	80	173
11	Pearl St. east of Soscol	N/A	-	-
12	Pearl St. west of Soscol	62.5	-	73
13	Jefferson St. north of Clay St.	66.3	61	132
14	Jefferson St. south of Clay St.	66.2	60	130
15	Clay St. east of Jefferson	60.6	-	55
16	Clay St. west of Jefferson	60.4	-	53
17	Second St. north of Jefferson St.	66.5	63	136
18	Second St. south of Jefferson St.	66.0	58	126
19	Jerfferson St. east of Second St.	61.9	-	67
20	Jerfferson St. west of Second St.	60.8	-	57
21	Coombs St. north of Third St.	59.8	-	-
22	Coombs St. south of Third St.	61.3	-	61
23	Third St. east of Coombs St.	64.0	-	92
24	Third St. west of Coombs St.	62.7	-	76
25	Main St. north of First St.	63.1	-	80
26	Main St. south of First St.	63.8	-	90
27	First St. east of Main St.	62.0	-	68
28	First St. west of Main St.	61.0	-	58
29	Main St. north of Third St.	63.3	-	83
30	Main St. south of Third St.	59.8	-	-
31	Third St. east of Main St.	65.6	55	118
32	Third St. west of Main St.	64.5	-	100
33	Soscol Ave north of First St.	68.2	82	176
34	Soscol Ave south of First St.	67.9	78	168
35	First St. east of Soscol	63.0	-	79
36	First St. west of Soscol	62.7	-	76
37	Soscol Ave north of Third St.	67.8	77	166
38	Soscol Ave south of Third St.	67.8	77	166
39	Third St. east of Soscol	64.3	-	97
40	Third St. west of Soscol	65.5	54	116
41	Silverado Tr. North of First St.	66.5	63	136
42	Silverado Tr. south of First St.	66.2	60	130
43	First St. east of Silverado Tr.	54.6	-	-
44	First St. west of Silverado Tr.	60.6	-	55
45	Third St. north of Silverado Tr. (using East Ave)	64.8	-	104
46	Third St. south of Silverado Tr. (using East Ave)	66.1	59	128
47	Silverado Tr. East of Third St (East Ave.	59.4	-	-
48	Silverado Tr. west of Third St (East Ave.	62.1	-	69
49	First St. north of SR 29 SB Ramp	N/A	-	-
50	First St. south of SR 29 SB Ramp	64.2	-	95

TABLE 4.I-4 (Continued)
PEAK HOUR TRAFFIC NOISE CONTOURS FOR SELECTED ROADS, 2035[1,2]

	Roadway Segment	Predicted 2035 – 50 feet from Road Centerline	65 dBA - Distance from Road Centerline (ft)	60 dBA - Distance from Road Centerline (ft)
51	SR 29 SB Ramp east of First St.	67.7	76	163
52	SR 29 SB Ramp west of First St.	67.3	71	153
53	First St. north of SR 29 NB Ramps	61.3	-	61
54	First St. south of SR 29 NB Ramps	62.4	-	72
55	SR 29 NB Ramps east of First St.	68.2	82	176
56	SR 29 NB Ramps west of First St.	67.7	76	163
57	California Blvd. north of First St.	65.0	-	108
58	California Blvd. south of First St.	65.3	52	113
59	First St. east of California Blvd.	63.4	-	84
60	First St. west of California Blvd.	68.3	83	179
61	Silverado Tr. North of Third St.(using Coombsville)	66.0	58	126
62	Silverado Tr. south of Third St.(using Coombsville)	65.6	55	118
63	Third St. east of Silverado Tr. (using Coombsville)	63.0	-	79
64	Third St. west of Silverado Tr. (using Coombsville)	63.5	-	86

1 Road center to receptor distance is 15 meters (approximately 50 feet) for values shown in this table. Noise levels were calculated using the FHWA Traffic Noise Prediction Model (FHWA TNM) LookUp Program Software Version 2.1, 2007. Look-Up data (02/08/2007) generated by TNM Version 2.5. Prepared by US Department of Transportation, Research and Innovative Technology Administration, Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. The modeling does not take into consideration potential barriers between the roadway and the receptors, but assumes there is no attenuation from structures between the roadway and the receiver locations.

2 The analysis assumes the average vehicle speed on each of the roadway segments to be 30 mph. A vehicle mix consisting of 97 percent automobiles, 2 percent medium trucks, and 1 percent heavy trucks was used for the various roadway segments.

SOURCES: Kimley-Horn Associates, Inc. 2011, Environmental Science Associates, 2011.

Impact 4.I-3: Development facilitated by the Specific Plan could potentially result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. (Significant before Mitigation)

Buildout of the proposed Specific Plan could potentially expose more people to the impacts of excess groundborne vibration or noise levels. Increased exposure to sources of groundborne vibration could occur through increased residential or employment densities on lands within proximity to noise generating activities (commercial, railroad, construction). Specifically, vibration created through construction activities or railways could result in potentially significant impacts on existing or proposed sensitive land uses.

The implementation of the following Policies of the *Health and Safety Element* of the Napa General Plan would help reduce the potential for excessive groundborne noise and groundborne vibration: Policy HS-9.2, HS-9.9, HS-9.11, HS-9.14. These policies would ensure that new development does not exceed City standards (HS-9.2), limits construction activities (HS-9.9), protects noise sensitive land uses (HS-9.11), and includes site planning techniques to limit noise and vibration impacts (HS-9.14).

However, implementation of the Specific Plan would locate sensitive receptors near the existing Wine Train track. The Federal Transit Administration has developed screening distances for vibration impacts associated with conventional commuter railroads. According to these distances, residences and buildings where people normally sleep should be located a minimum of 200 feet from the right-of-way. Therefore, given that development under the Specific Plan could put residences within close proximity to the train station and mainline track, impacts would be potentially significant. **Mitigation Measure 4.I-3** would require that all residential developments included in the Specific Plan within 200 feet of the rail station and mainline track undergo a detailed vibration analysis to determine the potential for vibration impacts. Implementation of this measure would ensure that impacts would be less than significant.

> **Mitigation Measure 4.I-3:** Groundborne vibration exposure to proposed Specific Plan residences within 200 feet of the mainline track shall be analyzed in a detailed vibration study by a qualified acoustical engineer to determine if vibration isolation shall be required in building design, such as supporting the new building foundations on elastomer pads similar to bridge bearing pads. The results of each study shall be submitted to the City prior to project approval.

Significance after Mitigation: Less than Significant.

Cumulative Impacts

Impact 4.I-4: Development facilitated by the Specific Plan, along with other past, present, existing, approved, pending, and reasonably foreseeable future development in the vicinity, could potentially result in increased traffic noise conflicts. (Less than Significant)

In order to assess cumulative impacts, the EIR must analyze either a list of past, present, and probable future projects or a summary of projections contained in an adopted general plan or related planning document. It is important to note that the proposed Specific Plan is essentially a set of projects, representing the cumulative development scenario for the reasonably foreseeable future in Downtown. Therefore, the analysis presented above represents a cumulative analysis of the Planning Area for the duration of development until the year 2035.

The noise analyses included in this section are based upon the buildout (year 2035) cumulative numbers of the traffic analysis, and therefore already represent a cumulative scenario in the Planning Area. As stated in Impact 4.I-2, none of the roadway segments are predicted to generate significant noise level increases.

Implementation of the policy provisions outlined in the Impacts 4.I-1 through 4.I-3 would assist in reducing noise exposure impacts to a less than significant level.

Mitigation: None Required.

References – Noise and Vibrations

Bolt, Beranek and Newman, U.S. EPA, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances,* 1971.

Caltrans, 1998. *Technical Noise Supplement*. October 1998.

City of Napa, 1998. *Envision Napa 2020, City of Napa General Plan Health and Safety Element*. Adopted December 1, 1998.

Cunniff, *Environmental Noise Pollution*, 1977.

FHWA Traffic Noise Prediction Model (FHWA TNM) LookUp Program Software Version 2.1, 2007. Look-Up data generated by TNM Version 2.5 Prepared by US Department of Transportation, Research and Innovative Technology Administration, Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division.

Federal Transit Administration (FTA). 2006. *Transit Noise and Vibration Impact Assessment,* May 2006.

Kimley-Horn, 2011. *Downtown Napa Specific Plan, Draft Traffic Impact and Parking Analysis,* March 15, 2011.

State of California Governor's Office of Planning and Research. 2003. *General Plan Guidelines*. October 2003.

4.J Population and Housing

This section evaluates the population, employment and housing-related effects of the proposed Downtown Napa Specific Plan, with potential impacts that would result from implementation of the Specific Plan identified below. This section also contains a discussion of the consistency of the Specific Plan with relevant housing and land use policies. This section relies primarily on information from the 2000 U.S. Census (Census)[1], the Association of Bay Area Governments (ABAG), the California Department of Finance (DOF), and the City of Napa General Plan 2020, which includes a summary of the City's 2001 Housing Element.[2]

Association of Bay Area Governments (ABAG) data is the primary data source for the environmental setting, presented below. Population and other demographic estimates amongst California agencies frequently differ slightly due to their specific date as well as the jurisdiction or population they may represent. In addition, differences in the methodology and purpose for the estimates can result in minor variances in their estimates. ABAG data is used as the primary data source since it provides the future demographic and economic projections for the entire Bay Area that are most consistent and applicable for evaluating the City's currently expected future socioeconomic conditions.

Population Setting

The following setting identifies existing conditions and projected future trends for the Planning Area, the City of Napa, and Napa County. The countywide, citywide and regional context for population, employment, and housing is also presented, along with identification of the relationship between jobs and housing.

The Planning Area, or Downtown, is located within the City of Napa in Napa County. Napa is situated approximately 50 miles north of San Francisco, at the southern end of the Napa Valley. Within Napa, the Downtown is located on the west bank of the Napa River, near a large meandering oxbow in the river's course. Downtown is in the central part of the City in between State Route 29 and State Route 121. Napa is the location of the Napa County seat and is the County's largest incorporated city.

As of 2010, Napa County was the least populous county in the nine-county Bay Area region, followed by Marin County and Solano County.[3] In 2010, Napa County's population was approximately 138,800 (ABAG, 2009). ABAG anticipates that by 2035, Napa County will have a population of approximately 147,500.

1 2010 Census data is not yet available.
2 ABAG is a regional planning agency, representing the cities and counties of the Bay Area.
3 The nine counties consist of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

Table 4.J-1 summarizes population trends in the Bay Area counties. Napa County's population growth was moderate between 2000 and 2010 (an increase of approximately 14,521 people, or 12 percent), while in the Bay Area as a whole, the rate of population growth was lesser (an increase of approximately 8 percent). Between 2015 and 2035, Napa County's overall population is expected to increase by about 5 percent, and the County is expected to maintain its ranking as the least populous Bay Area county. The Bay Area is expected to grow by 14 percent during this same time frame.

Table 4.J-2 summarizes population trends within Napa County. Within the County, the City of Napa ranks as the most populous jurisdiction, followed by unincorporated County lands. The remaining municipalities have far smaller populations than the City of Napa or unincorporated Napa County areas. The next most populous incorporated County areas are the City of American Canyon, the town of St. Helena, and the City of Calistoga, respectively.

The City of Napa's population was approximately 77,800 in 2010, making up approximately 56 percent of the County's population. Based on ABAG Projections, over the last decade, the City's and the County's populations have grown steadily, increasing by 7 percent and 12 percent, respectively, between the years 2000 and 2010.Most projections indicate that this trend in population growth is expected to continue.

ABAG projects a 9 percent increase in the City's population between 2010 and 2035. During this same period, Napa County's population is expected to grow at a slightly lower rate (7 percent) while the entire Bay Area region population is projected to increase by 19 percent. The lower growth projections for the City of Napa and Napa County largely reflect these areas' more limited developable land resources. In 2035, the City of Napa's population is anticipated to make up 57 percent of the County's population, similar to the current proportion.

According to the U.S. Census Bureau, in 2009 the median age in the City of Napa was 36.9 years, which is slightly lower than the median age for Napa County (39.3), and slightly higher than the state of California's median age (34.4 years of age). The majority of Napa residents (62.4 percent) are over the age of 18 and under the age of 65. Seniors (65 years of age and older) make up approximately 13 percent of Napa's population. The percentage of seniors in Napa is slightly lower than the percentage of seniors within Napa County (14.7 percent), and slightly higher than percentage of seniors within the state (about 11 percent of the state population). The number of youths under the age of 18 in 2009 was approximately 24.6 percent of the population in Napa, slightly higher than Sonoma County (23.5 percent) and slightly lower than the state (26 percent).

Housing Setting

Between 2000 and 2010, the number of housing units increased throughout the Bay Area by approximately 8 percent (ABAG, 2009). During this period, Napa County experienced an approximate 12 percent growth in the housing stock, adding about 5,794 units. In terms of the percentage increase, Napa County was exceeded by only two other Bay Area counties, Solano and Contra Costa. **Table 4.J-3** compares the number of housing units from 2000 to 2010 in each of the nine Bay Area counties.

TABLE 4.J-1
BAY AREA POPULATION PROJECTIONS BY COUNTY, 2000-2035

County	2000	2005	2010	% change 2000-2010	2015	2020	2025	2030	2035	% change 2010-2030
Alameda	1,443,741	1,505,300	1,549,800	7%	1,626,100	1,705,900	1,787,300	1,874,600	1,874,600	21%
Contra Costa	948,816	1,023,400	1,090,300	15%	1,130,700	1,177,400	1,225,500	1,273,700	1,273,700	17%
Marin	247,289	252,600	256,500	4%	260,300	264,000	267,300	270,900	270,900	6%
Napa	**124,279**	**133,700**	**138,800**	**12%**	**142,300**	**144,600**	**146,300**	**147,500**	**148,800**	**7%**
San Francisco	776,733	795,800	810,000	4%	837,500	867,100	900,500	934,800	934,800	15%
San Mateo	707,163	721,900	733,300	4%	766,900	801,300	832,400	862,800	862,800	18%
Santa Clara	1,682,585	1,763,000	1,822,000	8%	1,945,300	2,063,100	2,185,800	2,310,800	2,310,800	27%
Solano	394,542	421,600	443,100	12%	458,500	472,100	484,600	495,800	495,800	12%
Sonoma	458,614	479,200	497,900	9%	509,900	522,500	535,200	548,400	548,400	10%
Bay Area	6,783,762	7,096,500	7,341,700	8%	7,677,500	8,018,000	8,364,900	8,719,300	8,719,300	19%

SOURCE: ABAG, 2009

TABLE 4.J-2
NAPA COUNTY POPULATION BY MUNICIPALITY, 2000-2035

Municipality	2000	2005	2010	% change 2000-2010	2015	2020	2025	2030	2035	% change 2010-2030
American Canyon	9,774	14,600	17,400	78%	17,700	18,000	18,400	18,600	18,800	8%
Calistoga	5,190	5,200	5,300	2%	5,400	5,400	5,400	5,400	5,400	2%
Napa	**72,585**	**76,400**	**77,800**	**7%**	**80,300**	**81,800**	**82,800**	**83,700**	**84,600**	**9%**
St. Helena	5,950	6,100	6,100	3%	6,100	6,200	6,200	6,200	6,300	3%
Yountville	3,297	3,400	3,400	3%	3,500	3,600	3,600	3,600	3,600	6%
Unincorporated	27,483	28,000	28,800	5%	29,300	29,600	29,900	30,000	30,100	5%
Napa County	124,279	133,700	138,800	12%	142,300	144,600	146,300	147,500	148,800	7%

SOURCE: ABAG, 2009

TABLE 4.J-3
NUMBER OF HOUSING UNITS BY COUNTY FOR THE BAY AREA, 2000-2010

County	2000 Housing Units	2005 Housing Units	2010 Housing Units	% Change in Housing Units 2000-2010
Alameda	540,183	558,105	575,465	7%
Contra Costa	354,577	378,954	400,268	13%
Marin	104,990	107,476	108,850	4%
Napa	**48,554**	**52,209**	**54,348**	**12%**
San Francisco	346,527	355,101	368,136	6%
San Mateo	260,578	266,431	269,491	3%
Santa Clara	579,329	607,063	629,508	9%
Solano	134,513	146,251	153,280	14%
Sonoma	183,153	191,901	200,332	9%
Bay Area Total	2,552,404	2,663,491	2,759,678	8%

SOURCES: Department of Finance, 2010

According to the California Department of Finance, there were approximately 27,776 housing units within the City's Urban Growth Boundary (UGB) in 2000 and 30,388 housing units within the City's UGB in 2010, an increase of 2,612 housing units or 9 percent (see **Table 4.J-4**) over this ten-year time frame. In 2010, single-family housing accounted for 68 percent while multi-family housing accounted for 27 percent of total housing stock. Compared to Napa County, the City has a lower proportion of single-family housing in general, although its proportion of attached single-family housing is slightly higher than the County's (see **Table 4.J-5**). The City of Napa also has a higher proportion of multi-family housing compared to the County as a whole. Table 4.J-5 presents the range of housing types currently provided in the City of Napa, as compared to the County of Napa.

TABLE 4.J-4
NUMBER OF HOUSING UNITS BY CITY FOR NAPA COUNTY, 2000-2010

County	2000 Housing Units	2005 Housing Units	2010 Housing Units	% Change in Housing Units 2000-2010
American Canyon	3,274	4,844	5,708	74%
Calistoga	2,249	2,278	2,343	4%
Napa	**27,776**	**29,433**	**30,388**	**9%**
St Helena	2,707	2,750	2,751	2%
Yountville	1,148	1,165	1,197	4%
Balance Of County	11,400	11,739	11,961	5%
Incorporated	37,154	40,470	42,387	14%
Napa County Total	48,554	52,209	54,348	12%

SOURCES: Department of Finance, 2010

TABLE 4.J-5
EXISTING HOUSING TYPES (2010)

Housing Type	City of Napa	Distribution % (City of Napa)	County of Napa	Distribution % (County of Napa)
Single-Family				
Detached	18,299	60%	36,532	67%
Attached	2,449	8%	3,609	7%
Multi-family Residences				
2-4 Units in Structure	2,875	10%	3,745	7%
5 Units or More in Structure	5,291	17%	6,450	12%
Mobile Homes	1,474	5%	4,012	7%
Total	**30,388**	**100**	**54,348**	**100**

SOURCE: Department of Finance, 2010

According to the Market Demand Analysis prepared for the Downtown Napa Specific Plan, recent development patterns suggest an increasing trend toward higher density housing types.

The U.S. Census Bureau estimates that approximately 60.2 percent of the existing housing units in the City are owner-occupied and 39.8 percent are rental units. Based on ABAG Projections 2009, in 2010, City of Napa/and Napa Subregional Area's average household size is estimated to have been approximately 2.61 persons, which was virtually the same as the County average of 2.60 persons per household. The City average household size in 2035 is projected to be 2.63, also similar to the County's projection of 2.62 persons per household. Thus, it is expected to remain unchanged for the foreseeable future. Napa's average household size falls within the range of household sizes in other County jurisdictions. For comparison purposes, as of the household size of American Canyon (and SOF) is 3.08, the highest in the County, while that of Yountville (and SOF) is 1.89, the lowest in the County.

Employment Setting

According to ABAG, the total number of jobs in Napa County, held by both County residents and non-residents was about 70,770 in 2010. As shown in **Table 4.J-6**, the number of jobs in the County has grown by approximately 7 percent between the years 2000 and 2010. By 2035, the County is projected to include approximately 91,480 jobs, representing a projected increase of about 29 percent between the years 2010 and 2035. There were approximately 34,590 jobs in the City of Napa in 2010, with the number of jobs in the City having grown approximately 7 percent between the years 2000 and 2010 (same as the County). The number of jobs in the City of Napa is forecast to increase by approximately 27 percent between 2010 and 2035 to a total of 43,980 jobs. Table 4.J-6 summarizes employment trends within City of Napa, Napa County and vicinity. Based on the Existing Conditions Report prepared for the Downtown Napa Specific Plan, the most significant jobs growths are expected to occur in finance and professional services, health, educational, and recreational service industries.

TABLE 4.J-6
NAPA AND VICINITY EMPLOYMENT CHANGE, 2005–2035

Jurisdictional Boundary	2000	2005	2010	% change 2000 - 2010	2015	2020	2025	2030	2035	% change 2010 - 2035
American Canyon	1,840	2,230	2,250	22	3,320	4,580	5,830	6,820	7,810	247
Calistoga	2,710	2,770	2,770	2	2,790	2,900	3,020	3,160	3,300	19
Napa	**32,460**	**34,580**	**34,590**	**7**	**35,650**	**36,650**	**37,740**	**40,870**	**43,980**	**27**
St. Helena	5,600	5,810	5,810	4	5,830	5,910	6,000	6,090	6,170	6
Yountville	1,900	2,120	2,120	12	2,200	2,300	2,430	2,560	2,690	27
Unincorporated	21,850	23,180	23,230	6	24,390	25,580	26,850	27,270	27,530	19
Napa County	66,360	70,690	70,770	7	74,180	77,920	81,870	86,770	91,480	29

SOURCE: ABAG, 2009

Jobs/Housing Balance

The concept of a jobs/housing balance is used to examine whether a city, county, or region has a balance between its housing supply and its employment base. The primary function of such an analysis is to provide a generalized measure of employment or housing need in areas where the relationship between these two characteristics is out of balance and to indicate the potential severity of such a condition on traffic and related effects to air quality, and housing affordability. A region with too many jobs relative to housing is likely to experience escalation in housing prices (with a concurrent decline in affordability for the lower-income segments of the community) and intensified pressure for additional residential development. Conversely, a region that has relatively few jobs in comparison to employed residents may have many workers commuting to jobs elsewhere which can lead to increased traffic congestion and adverse effects on both local and regional air quality.

According to ABAG, Napa County has slightly more jobs than employed residents, indicating that residents from other areas commute into the County for work. The jobs/employed residents ratio within Napa County in 2010 was approximately 1.07 (70,770 jobs for 66,300 employed residents). ABAG projects that the jobs/employed residents ratio will increase to 1.2 by 2035, based on 91,480 projected jobs and 76,200 employed residents by 2035 (see **Table 4.J-7**). Thus, the trend of residents commuting outside of the area for employment will likely continue.

The jobs/employed residents ratio in the City of Napa and surrounding areas weighted more heavily towards employed residents. In 2010, according to ABAG, the jobs/employed residents ratio was about 0.89 (35,510 jobs and 39,950 employed residents), and this ratio is expected to increase slightly by 2035(45,010 jobs and 46,950 employed residents), indicating that the City will move toward reaching a better jobs-housing balance.

Table 4.J-7 compares the existing (2010) and projected (2035) jobs-to-employed-residents ratios in the Bay Area as a whole as well as those in Napa County (Countywide) and the City of Napa and its Subregional Area.

TABLE 4.J-7
BAY AREA, NAPA COUNTY AND CITY OF NAPA JOBS TO EMPLOYED RESIDENTS RATIOS (2010, 2035)

	City of Napa (and Subregional Area)		Napa County		Bay Area	
	2010	**2035**	**2010**	**2035**	**2010**	**2035**
Jobs	35,510	45,010	70,770	91,480	3,475,840	5,107,390
Employed Residents	39,950	46,950	66,300	76,200	3,410,300	4,835,300
Jobs/Employed Residents Ratio	**0.89**	**0.96**	**1.07**	**1.20**	**1.02**	**1.06**

SOURCE: ABAG, 2009

Planning Area

As discussed in the Project Description, the Planning Area is bounded on the east by the eastern bank of the Napa River, on the south by Division and 3rd Streets, and Jefferson Street on the west. The northern boundary generally follows the zigzagging edge of the "Downtown Commercial" zoning area boundary adjacent to northern residential neighborhoods along Polk and Caymus Streets west of Soscol Avenue. Planning Area boundaries extend east to include the Oxbow Market and former Copia area east of Soscol Avenue. The Planning Area encompasses approximately 210 acres.

Currently Downtown is a predominantly commercial area with few residential units. The primary development type in the downtown area is retail, focusing on hospitality, culinary, and other leisure- and/or tourist-related establishments. Several large hotels have been constructed in the Planning Area within the past ten years. These types of uses dictate the types of jobs that predominate within the Planning Area. According to the Existing Conditions Report prepared for the Downtown Napa Specific Plan, there were an estimated 5,800 jobs in the Planning Area in 2008, with a higher emphasis on retail, public sector, and services than the City and County as a whole.

The Planning Area contains about 125 housing units, comprised of 31 single-family units and 94 multi-family units. The existing housing stock within the Planning Area is of higher density as compared to the rest of the City, with 25 percent of the housing units in the Planning Area single-family housing and 75 percent multi-family housing. However, the historic housing neighborhoods that surround the Planning Area contain mostly low-density, single-family housing.

In terms of age distribution, the Planning Area's population has a higher number of 18- to 34-year olds as compared to the City as a whole, 34 percent versus 24 percent, respectively. Furthermore, there are fewer children in the Planning Area than the City as a whole, 15 percent compared to 23 percent, respectively. The City's population is also older than the Planning Area population,

(those 65 years and older represent 14 percent of the City's population compared to 7 percent in the Planning Area) (City of Napa, 2009).

Regulatory Setting

This section discusses the local policies relevant to population and housing. Note that policy conflicts only constitute a significant environmental impact if they would result in direct physical impacts. In addition, applicable plans and polices related to land use, transportation and circulation, noise, and other environmental categories are discussed in other relevant sections of this Draft EIR.

State

Assembly Bill 2853

Assembly Bill 2853 (AB 2853), enacted in 1980, requires all cities to discuss their regional "fair share allocation" of housing needs by income group in their Housing Element. The City of Napa must therefore discuss its "regional fair share" as projected by ABAG. ABAG's determination of the local share of regional housing must take into consideration factors such as market demand for housing, employment opportunities, availability of suitable sites and public facilities based on local plans, commuting patterns as they relate to the differences between job creation and labor supply, type and tenure of housing, and housing needs of farmworkers.

ABAG's Fair Share Housing Allocations

ABAG has five established housing affordability categories. The categories are based on the region's median income level, taking into account households ranging in size from one to six people (the categories are summarized in **Table 4.L-8** under "Income Category"). Based on ABAG's adopted allocation for the 2007 to 2014 planning cycle, the City of Napa is required under state planning law to identify development sites for at least 2,024 new housing units between 2007 and 2014. Of the 2,204 new housing units, 23 percent should be suitable for providing housing for residents at the "Very Low" income level, 14.6 percent for "Low" income residents, 18.8 percent for "Moderate" and 43.6 percent for "Above Moderate" income residents.

TABLE 4.J-8
CITY OF NAPA HOUSING NEEDS ALLOCATION, 2007-JUNE 2014

	Production Goals by Income Category 2007 – June 2014	
Income Category	**No. of Units**	**% of Total**
Very Low (< 50% AMI)	466	23%
Low (<80% AMI)	295	14.6%
Moderate (<120% AMI)	381	18.8%
Above Moderate (over 120% AMI)	882	43.6%
Totals	**2,024**	**100.0%**

SOURCE ABAG, San Francisco Bay Area Housing Needs Plan, 2007-2014

The City's Housing Element 2009 contains a discussion of the City's housing allocation needs and discuses various programs to address low-income housing requirements (i.e., rehabilitated apartments and SRO's, rental assistance programs, etc.). The Housing Element also contains an inventory of vacant and underdevelopments sites as well as sites with known potential for redevelopment which are available for housing development.

Government Code Section 65588

California requires every city and county in the state to include a housing element in its General Plan. Housing elements are prepared approximately every five years, following timetables set forth in the law. According to state law, San Francisco Bay Area jurisdictions, including Napa County, were mandated to complete the latest revisions to their Housing Elements by June 30, 2009. The housing element must address housing opportunities for low- and moderate-income residents on a local and regional level.

Each local government must review its housing element as frequently as appropriate to evaluate all of the following:

(1) The appropriateness of the housing goals, objectives, and policies in contributing to the attainment of the state housing goal.

(2) The effectiveness of the housing element in attainment of the community's housing goals and objectives.

(3) The progress of the city, county or city and county in implementation of the housing element.

[Government Code Section 65588(a)-(b)]

City of Napa General Plan

Goals and Policies

Several goals and policies of the General Plan apply broadly to land use and development across the City. The land use and housing element goals and policies specifically relevant to population and housing for the Specific Plan are discussed below. Applicable policies of other elements are discussed in the relevant sections of this Draft EIR.

Land Use Element

Policy LU-1.3. The City shall recognize downtown as an important asset of the city and seek to strengthen and revitalize it.

Policy LU-6.8. The City shall identify key entry points and blighted conditions on the edges of downtown and support programs and projects that enhance downtown gateways and transitional zones between downtown and surrounding neighborhoods. The City shall seek to remove blighting conditions at key entry points to make downtown more inviting for residents and visitors.

Policy LU-6.11. The City shall support appropriate infrastructure improvements for downtown, including those outlined in the Redevelopment Agency's Five-Year Implementation Plan.

Policy LU-6.12. The City and Redevelopment Agency shall prepare incentive programs and regulatory ordinances that stimulate public and private investment in the downtown.

Policy LU-6.E. The City and Redevelopment Agency shall investigate programs and regulatory procedures to stimulate the rehabilitation and reuse of vacant downtown buildings.

Policy LU-6.F. The City and Redevelopment Agency shall work with existing organizations, professional groups, and agencies in the downtown to develop a targeted recruitment and retention strategy and a plan to promote and market the city as a viable place for business.

Economic Development Element

Policy ED-3.5. The City shall support the development and expansion of specialty retail businesses in Downtown that cater to visitors and residents alike. Off-price and discount stores are discouraged in Downtown due to high square footage and parking requirements that are unlikely to be accommodated there.

Policy ED-3.7. Recognizing the importance of Downtown to the city's image, the City shall ensure that Downtown infrastructure, public facilities, and public areas are well maintained. The City shall also provide ongoing code enforcement in Downtown.

Policy ED-3.8. The City shall support creative public and private solutions to providing parking facilities and non-automobile access to Downtown. The City shall strive to maintain an adequate inventory of parking facilities Downtown.

Policy ED-3.9. The City and Redevelopment Agency shall work closely with the Napa County Flood Control and Water Conservation District and U.S. Army Corps of Engineers to ensure the Downtown Reach of the Flood Protection Plan is consistent with the City's waterfront vision, maximizes pedestrian access to the riverfront, and ensures continuity of design among all the flood protection features including the river trail, bypass channel, flood walls, bridges, and Veteran's Park.

Policy ED-3.11. The City shall support the development of additional entertainment venues, special events, and recreational opportunities in the downtown area.

Policy ED-3.12. The City shall continue to recognize the importance of historic downtown residential neighborhoods as an asset to the economic viability of the downtown commercial area and foster an improved physical relationship between these two areas while preserving the qualities of the historic neighborhoods.

Housing Element

Napa's current Housing Element was adopted in 2009. State Housing Element Law requires cities in California to regularly update their Housing Elements and plan for the future development of adequate new housing units to meet their share of their regional housing needs. As part of its

housing element development process, each local jurisdiction is required to consider and respond to the regional housing need allocation set for it. ABAG is responsible for determining the regional housing allocation necessary to ensure that local jurisdictions within the Bay Area develop their fair share of new housing to meet the region's future housing needs.

> ***Policy H2.15*.** Sustainable Development Patterns: The City shall promote and encourage mixed use and higher density development patterns Downtown and in other suitable locations to facilitate resident pedestrian, bicycle and transit access to daily services, recreation and jobs. In addition, green building programs shall be strengthened.
>
> ***Policy H1.13*.** Priority for Housing on Surplus City Sites: The City shall give high priority for affordable housing (or affordable housing as part of a mixed use project) when city owned sites become surplus. These include the City Corporation Yard site should that site become surplus and the City Community Service Building property should a consolidated City Hall complex be constructed.
>
> ***Policy H1.14*.** Surplus Institutional Lands: The City shall encourage redevelopment of surplus institutional lands (including School District, Sanitation District, College, County, Caltrans, churches) with affordable housing or affordable housing as part of a mixed use project.
>
> ***Policy H2.7*.** Adaptive Reuse: The City will encourage adaptive reuse of vacant buildings in mixed use general plan categories

City of Napa Municipal Code

The Napa Municipal Code Section 15.94 establishes the Housing Trust Fund, a Housing Impact Fee on developers for nonresidential development projects in the City of Napa, and establishes an inclusionary requirements or an in-lieu fee on developers of residential development project to offset impacts caused by these development projects on the demand for additional affordable housing units and rising land prices of residential land. The fees are enforced to pay the costs of providing affordable housing for very low, low, and moderate income households (City of Napa, 2011).

Impacts and Mitigation Measures

Significance Criteria

Consistent with CEQA *Guidelines* Appendix G (Environmental Checklist) the project could have a significant impact if it would result in:

a) Substantial unanticipated population, housing, or employment growth in excess of local share of regional projections that has the potential to result in adverse physical environmental effects; or

b) Displacement of existing residents or housing units.

Approach to Analysis

The impact analysis for population, housing and employment evaluates the change in development capacity that would occur as a result of the implementation of the proposed Specific Plan. The analysis estimates the amount of population, housing, and employment that could be constructed within the Planning Area assuming full buildout. The total additional population that could be generated by the proposed Specific Plan assumes the multipliers presented in **Table 4.J-9**, below. For example, to estimate increase in residential population, the assumptions below estimate 2.2 persons per each additional housing unit. To estimate additional daytime population associated with proposed retail, office and hotel uses, the assumptions below estimate one employee per certain amount of floor space (450 sf, 400 sf, and 1,150 sf, respectively) allocated by the Specific Plan for those types of uses.

TABLE 4.J-9
PLANNING AREA POPULATION AND EMPLOYMENT GROWTH

Land Use Type[a, b]	Existing Displaced	Proposed	Net Increase	Multiplier Used	Net Population Generated	Total Net Population
Residential (units)	15	642	627	2.2/unit	1,379	1,379 residents
Retail (sf)	566,890	675,470	108,580	1/450 sf	241	1,637 employees
Office (sf)	131,341	601,940	470,599	1/400 sf	1,176	
Hotel (room)	0	252,570	252,570	1/1,150 sf	220	

a Flex space square footage distributed into total square feet assuming 43% residential, 35% retail, 22 % office.

b The development capacity under the proposed Specific Plan would displace develop potential under the existing General Plan.

Impacts and Mitigation Measures

Impact 4.J-1: Development facilitated by the Specific Plan could potentially induce growth in population and employment in the Planning Area. (Less than Significant)

According to ABAG Projections, the City of Napa is estimated to result in a citywide population increase of 5,900 persons, from 77,800 to 84,600 (an increase of approximately 8.7 percent), at the approximate buildout year for the Specific Plan (2035). It is assumed that some of this increase in population would occur in the City's Downtown. More specifically, within the Planning Area, the proposed rezoning would accommodate an additional 627 net new housing units, which would generate approximately 1,379 net new residents within the Planning Area. This figure is based on the assumption that each housing unit would generate approximately 2.2 residents (see Table 4.J-9, above). The rezoning would, therefore, induce growth within the Planning Area. However, this growth would amount to less than one percent of total citywide growth anticipated in 2035 and is already expected given that the Planning Area is the City's Downtown, where higher-density housing is encouraged by the General Plan.

The new housing that would be constructed under implementation of the Specific Plan would be consistent with General Plan Policy H2.15, which states that the "The City shall promote and

encourage mixed use and higher density development patterns Downtown and in other suitable locations to facilitate resident pedestrian, bicycle and transit access to daily services, recreation and jobs. In addition, green building programs shall be strengthened." Thus, while the Specific Plan would introduce new population to the Downtown, the projected housing development would not be expected to result directly in substantial unanticipated population growth. Higher-density housing would be generally appropriate in the Planning Area due to its proximity to amenities and would meet some of the regional demand for housing. Residential density would also be guided depending on the location and proximity to most intensive areas. Furthermore, development standards and design guidelines developed as part of the Specific Plan would ensure that appropriate transitions exist between the proposed higher-density residential development and the surrounding historic areas as well as low-density residential neighborhoods.

The Planning Area is located within the City's existing retail and service areas and within the Rural Urban Limit (RUL) line. As such, it is currently served by urban infrastructure, services and transit options. To the degree that new housing would require specific upgrades or expansions on a project-by-project basis, individual proposals would be required to pay impacts fees or otherwise assist in the construction of any necessary transportation, parks and water improvements. However, no new infrastructure would need to be extended into the Planning Area.

The Specific Plan also would allow for additional commercial uses, with a proposed net increase of 108,580 square feet of retail space, 470,599 square feet of office space and 252,570 square feet of hotel use at full buildout. Applying employment density factors indicated in Table 4.J-9, it is estimated that, in combination, these proposed commercial uses would create approximately 1,637 net new additional jobs within the Planning Area if all proposed uses are built out. Since ABAG projects approximately 43,980 jobs in the City of Napa at the time of the project buildout, the new jobs generated by the proposed Specific Plan would constitute approximately four percent of total job stock in the City. However, an increase in future jobs within the Planning Area, through revitalization of the Downtown and channeling of new commercial and residential growth to this area, is already planned for and expected as part of the City's long-term economic strategy. According to the Existing Conditions Report, tourism is considered to be a strong market in Napa in the future, as is the office market, which has experienced steady growth in the Napa region within the past ten years. The Planning Area is targeted for growth in office and hospitality uses due to its proximity to amenities and its focus as the City's commercial hub.

The General Plan contains goals to support the Downtown as a vital commercial core with a mix of uses and buildings types, recreational amenities and pedestrian-friendly amenities. For example, General Plan Policy LU-1.3 states that the "City shall recognize downtown as an important asset of the city and seek to strengthen and revitalize it," while Policy ED-3.5 states that the "City shall support the development and expansion of specialty retail businesses in Downtown that cater to visitors and residents alike." Based on the Existing Conditions Report prepared for the Specific Plan, there is strong potential for commercial development in the Downtown area and the implementation of the Specific Plan would manage such growth in a coordinate manner, minimizing potential conflicts between uses. It is noted that, due to current economic recession, there may be changes in demand for commercial space, office space, hotel

and housing over the Specific Plan buildout and the rate of development under the Specific Plan is subject to market forces.

The Specific Plan's impact related to inducing population growth, either directly or indirectly, would be less than significant because development envisioned under the Specific Plan is anticipated and planned for, and would support the goals of the General Plan. As discussed above, the Specific Plan would allow for future development to occur in an organized manner, with various guidelines used to ensure an appropriate transition between the more intensive Downtown and the less intensive surrounding areas.

Mitigation: None Required.

Impact 4.J-2: Development facilitated by the Specific Plan could potentially displace existing housing or people such that construction of replacement housing elsewhere would be required. (Less than Significant)

The proposed Specific Plan is intended to be implemented gradually over the next 25 years. The rate and type of development would be primarily determined by the private sector and would occur predominantly as market demand and individual property owners choose to sell or redevelop their properties. As existing housing units are removed, subsequent redevelopment under the Specific Plan would allow for new residential development to replace any lost units and add additional housing units to the Planning Area land use mix.

The Specific Plan proposes to establish housing in the following proposed zoning districts: Downtown Mixed-Use (Third Street to the northern boundary of the Planning Area, and from Seminary and Church Streets east to the Napa River), Downtown Neighborhood (blocks along the southern and western edges of the Planning Area, as well as a block north of Clinton Street); and Downtown Core Commercial zones (First Street from School Street to Napa River, and Main Street from Third Street to Caymus Street). Based on the development standards included in the proposed Specific Plan, residential densities would range from 10 to 60 dwelling units per acre, depending on the project's location. Therefore, since areas appropriate for housing have already been identified and planned for, the Specific Plan would not displace housing or people such that construction of replacement housing would be required elsewhere. Moreover, more units would be built than would be demolished.

The permitted residential development would also assist the City in meeting its share of regional housing needs. In addition, residential development would be required to comply with the City's existing Inclusionary Housing ordinance, which requires that affordable housing be included in new housing developments or that in-lieu fees be paid. The City's Housing Authority staff would review all new development proposals to ensure compliance with Section 15.94 of the Napa Municipal Code, which implements the inclusionary requirements of the City of Napa. Because specific locations for new housing have been identified as part of the Specific Plan, the

displacement of any existing residents within the Planning Area would be accommodated within the Planning Area and would not cause growth elsewhere.

In general, however, because the Specific Plan proposes substantially more residential development than currently exists within the Planning Area or than could be displaced, none of the residents within the existing housing in the area would be expected to be permanently displaced by future redevelopment, since residents would likely be able to occupy new housing added to the area. As noted above, at full buildout, the Specific Plan would add a net of 627 new housing units to the area.

Based on the above, the Specific Plan is not anticipated to result in the substantial displacement of residences of housing units, and would therefore be considered less than significant.

Mitigation: None Required.

Impact 4.J-3: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could potentially result in cumulative impacts to population and housing. (Less than Significant)

As discussed in Chapter 6, *Growth Inducing and Cumulative*, there are several commercial projects, a jail expansion and various other projects currently either approved or pending within the City of Napa as well as Napa County. Those that would be expected to result in increased population and/or jobs within the City or the County include the construction of a new 90,000-square-foot office building at the site of the existing surface parking lot at the southwest corner of Coombs Street and Third Street, the construction of a new 90,000-square-foot office building with 22,000-square-foot below-grade storage/meeting space at the site of the existing Administrative Building, and the proposed plans to expand the Downtown County Jail facilities to accommodate an additional capacity of 366 to 500 beds. These projects would result in a total net new office square footage of approximately 180,000 square feet. The jail would add up to 500 residents to the facility, in addition to approximately several dozens of jobs. Although no housing units are included in the cumulative projects list, it is likely that new jobs would generate demand for new housing either in the City of Napa or nearby.

However, ABAG Projections already assume that the population within the County would increase by approximately 5 percent over the next 25 years and growth associated with these projects is already assumed as part of these long-term projections. As shown in Tables 4.J-2 and 4.J-6, the City and County anticipate relatively high growth rates in population and jobs compared to other County jurisdictions (with the exception of the City of American Canyon). Because the City serves as the County seat and a regional employment hub for the County, a somewhat higher proportion of Countywide jobs and housing units is already expected to be sited within the city's RUL, as compared to less urbanized communities nearby. A corresponding growth between population, housing and employment suggests that the City's projected populace would live and work within

the city, which would be in line with the smart growth principles that the City is seeking to implement, which encourage the placement of jobs near where people live and vice versa.

As discussed above, the future job growth by 2035 after full buildout of the Specific Plan is estimated to be 1,637. Therefore, combined with the 450[4] jobs expected within the County as a result of the aforementioned cumulative projects, the cumulative jobs growth impact would be up to 2,060 new jobs. As shown in Table 4.J-6, the numbers of Citywide and Countywide jobs are projected by ABAG to grow by 9,390 and 20,710, respectively, over the 2010 job numbers. Thus, the cumulative growth of the Specific Plan and other foreseeable projects would represent less than ten percent of the City's expected future jobs growth. Such growth is consistent with and would not exceed the most recent ABAG projections. Consequently, the Specific Plan projected population, housing and jobs growths would not be considered substantial and unanticipated. Cumulative impacts related to the city's contribution to the anticipated regional growth in population, housing, and employment are, therefore, considered less than cumulatively considerable.

Furthermore, direct and indirect impacts of population, housing and jobs growths are considered throughout this EIR and include potential impacts to traffic, air quality, noise, visual resources, the provision of public services and utilities and other areas. To the extent that the projected population of the Specific Plan or other foreseeable projects nearby would result in significant adverse effects to these resources, these impacts have been identified and considered within relevant sections of this document.

Mitigation: None Required.

References – Population and Housing

Association of Bay Area Governments (ABAG), *Projections 2009*.

Association of Bay Area Governments (ABAG), *San Francisco Bay Area Housing Needs Plan, 2007-2014,* June 2008.

City of Napa, Downtown Napa Specific Plan Existing Conditions Analysis Report, June 2009.

City of Napa, Napa Municipal Code. http://qcode.us/codes/napa/view.php?topic=15-15_94-15_94_010&frames=on; accessed online, December 22, 2011.

State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark. Sacramento, California, May 2010.

U.S. Census Bureau, *American Fact Finder*, http://factfinder.census.gov/servlet/BasicFactsServlet, accessed March 28, 2011.

[4] This number is derived by employing a density factor of 425 (assuming an equal mix of office and retail uses) per employee, and adding to this figure approximately 25 jobs associated with the construction of the new jail facility.

4.K Recreation and Open Space

This section summarizes existing and proposed parks and recreational resources in Downtown Napa; identifies proposed changes in the amount and location of these resources within Planning Area; and evaluates the impacts of these changes on the overall supply and characteristics of parks and other recreational resources.

Setting

The Planning Area is bounded on the east by the eastern bank of the Napa River, on the south by Division and Third streets, and Jefferson Street to the west. The majority of recreational uses and open space areas in the Planning Area are located in the center of Downtown, primarily along Main Street or proximate to Main Street.

Existing Recreation and Open Space Facilities

The City of Napa has identified and classified six types of recreation and open space facilities. Each facility type is defined by specific criteria, primarily based on size, location, and permitted activities within each facility. **Table 4.K-1** provides a brief description of each classification and typical characteristics of each facility type.

There 11 recreation and open space facilities in the Planning Area. Of these, approximately eight facilities are designated as civic spaces. The remaining facilities include one Mini Park and one Special Use Park. The total existing parkland acreage within the Planning Area is approximately 5.6 acres of recreational and open space. **Table 4.K-2** presents the existing parkland facilities within Downtown.

There are several parkland uses in the vicinity of the Planning Area, including Fuller Park, a 9.5 acre community park located directly southwest of Downtown, and the Oxbow Preserve, a 12.7 acre natural area/open space located at the northeast boundary of the Planning Area, and the .8 acre Riverfront Green adjacent to the Napa River. Although these parkland areas are outside the boundaries of the proposed Specific Plan, they enhance and complement recreational opportunities available to residents and visitors of the downtown area.

Regulatory Setting

City of Napa General Plan

The General Plan includes many goals, policies, and implementation programs relating to Downtown. The following list includes relevant excerpts from the General Plan as it relates to recreation and open space:

> **Goal PR-1:** To develop a system of well-maintained and fully improved local and citywide serving parks and recreation facilities which meet the needs of the residents of Napa.

TABLE 4.K-1
PARK LAND BY CATEGORY IN CITY OF NAPA

Classification	Number of Sites	Number of Acres	Acres per 1,000 residents[a]	Characteristics
Mini Park	10	2.6	0.03	Small parks that serve residents in immediately adjacent neighborhoods. Mini parks provide basic recreation amenities, such as playgrounds, benches and landscaping. Mini parks generally are ½ acre to 2 acres in size and have a limited service area due to the minimal facilities provided.
Civic Spaces	7	2.8	0.04	Small landscaped spaces and gathering areas. Typically smaller than one acre in size and easily traversed on foot, civic spaces provide social space—often supported by amenities such as benches, tables, landscaping, public art, water features or other amenities to support community events.
Neighborhood Park	23	77.5	1.01	Located within walking and bicycling distance of most users, neighborhood parks provide close-to-home recreational opportunities for surrounding neighborhoods. These parks are designed primarily for non-supervised, non-organized recreation supported by facilities such as playground equipment, outdoor courts, picnic tables, pathways and multi-use open grass areas.
Community Park	4	233.7	3.03	Larger parks that provide both active and passive recreational opportunities that serve the entire community and often visitors from around the region and beyond. Typically, these sites are designed for active recreation, supported by facilities such as sport fields, outdoor courts, skate parks and recreation centers.
Natural Areas/ Open Space	5	325.8	4.23	Natural areas and open space are permanent, undeveloped spaces which are managed primarily for their natural resource value, and secondarily for recreational use. Natural areas and open space may include wetlands, wildlife habitats, steep hillsides or stream corridors.
Special Use Areas	8	178.1	2.31	Special use areas include stand-alone recreation facilities not located within larger parks. These can include single-purpose sites such as golf courses, community centers, aquatic centers, sports complexes, boat ramps, historic areas, and skate parks.
Total	**57**	**820.5**	**10.65**	

[a] Amount of parkland acreage available to residents based on the 2008 population estimate of 77,106 residents.

SOURCE: Napa Park and Facilities Master Plan (City of Napa, February 2010)

Policy PR-1.1. The City shall provide 12 acres of active and passive parkland per 1,000 residents. This total figure includes citywide, community, neighborhood, and other special park sites and recreational amenities incorporated into the public parks and recreational open space system.

Policy PR-1.2. Citywide parks, open space areas and trails shall include both active and passive recreational amenities of significance to the whole city. The target standard for provision of citywide parkland shall be 6 to 10 acres per 1,000 residents.

Policy PR-1.4. The target standard for provision of "community" parkland shall be between 1.2 and 1.5 acres per 1,000 residents. Community parks shall generally be in excess of 15 acres but may range from 5 to 50 acres in extent.

TABLE 4.K-2
EXISTING PARKLAND IN THE PLANNING AREA

Facility	*Type*	*Location*	*Acreage*
Heritage Park	Mini	Pearl Street and Coombs Street	0.3[c]
Napa Skate Park	Special Use	Pearl Street and West Street	0.8
Coombs Plaza	Civic Space	Coombs Street (between Pearl and First streets)	0.4
Promenade[a]	Civic Space	Main Street (between Third and Fifth streets)	0.4
First Street Overlook	Civic Space	First Street and Soscol Avenue	0.6
Riverbend Plaza[a]	Civic Space	Fifth Street and Main Street	0.4
Brown Street Plaza	Civic Space	Brown Street (between First and Second streets)	0.1
Dwight Murray Plaza	Civic Space	Brown Street and First Street	0.2
Veteran's Memorial Park	Civic Space	Main Street and Third Street	0.9
Formal Lawn (Old Courthouse)[a,b]	Civic Space	Coombs Street and Third Street	0.8
Opera House Plaza at Napa Creek	Civic Space	Main Street and First Street	0.7
		Total Existing Acreage (approx.)	***5.6***

[a] Indicates facility was not included in Napa Park and Facilities Master Plan; however facility was included in the Downtown Napa Specific Plan Existing Conditions Report (June 2009). Location, acreage, and facility type based on characteristics of these facilities were determined by ESA (2010).
[b] This property is owned and maintained by Napa County. It is not managed by the City of Napa nor included in the City's per capita inventory.
[c] This area is modified by the creek project.

SOURCE: ESA (2010); Napa Park and Facilities Master Plan (City of Napa, February 2010); Downtown Napa Specific Plan Existing Conditions Report (June 2009).

Policy PR-1.9. The target standard for provision of "neighborhood" parkland shall be between 1.2 and 1.5 acres per 1,000 residents. Neighborhood parks should be in excess of 5 acres but may range from 2 to 10 acres.

Policy PR-1.12. The City shall generally not accept new "mini-parks" of less than 2 acres into the park system unless they include specialized recreation facilities or unique resources.

Policy PR-1.14. The City shall include civic spaces as part of the park and recreational open space system.

Policy PR-1.16. Whenever feasible, the City shall encourage access to parks, open space areas, and trails for all segments of the population, including disabled. Site and improvement plans for parks and trails shall address access for the disabled whenever feasible. City bus routes should connect to citywide and community parks wherever feasible.

Goal PR-6: To develop a major public multi-use trail and amenities along the Napa River, while protecting and enhancing the natural resources along the trail corridor.

Policy PR-6.4. The City shall link the Napa River Trail to other trails, parklands and community resources including downtown and river-oriented businesses.

***Policy PR-6.22*.** The City shall establish "River Square", between First and Third Streets on the west side of the River, as a central active place of the community.

Goal PR-7: To recognize the importance of cultural activities as an integral factor in sustaining the community's high quality of life.

***Policy PR-7.5*.** The City shall expand the opportunity for artists to exhibit and perform in public areas.

***Policy PR-7.A*.** The City shall institute an Art in Public Places program in the City's downtown core.

City of Napa Parks and Facilities Master Plan

The City of Napa Parks and Facilities Master Plan (City of Napa, 2010) is a comprehensive document that includes a detailed evaluation of existing park sites and recreation facilities, and also includes several key issues from community involvement and analysis of needs/priorities of parking users. The Plan is designed to be consistent with the goals, policies, and objectives set forth in the City of Napa General Plan, and assists the City in developing and identifying ways to achieve the community's vision and plans for its parks and recreation facilities.

Impacts and Mitigation Measures

Significance Criteria

Appendix G of the CEQA *Guidelines* provides that a project would have a significant impact on parks and recreational facilities if it would:

a) Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Approach to Analysis

Development facilitated by the proposed Specific Plan was evaluated for conformity with the goals and policies of the General Plan related to parks and recreation.

Impacts and Mitigation Measures

Impact 4.K-1: Development facilitated by the Specific Plan could potentially increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration would occur, or require the construction or expansion of recreational facilities. (Less than Significant)

The proposed Specific Plan, a regulatory program, would not directly physically degrade any existing recreational resources in the Planning Area. The Specific Plan would, though, facilitate

development that would increase the residential population in Downtown. These additional residents would increase demand for and use of parks within the Planning Area, which would be developed incrementally over the 20-year period of the Specific Plan.

An unmet demand for parks and recreational resources, in itself, would not be considered a significant impact on the environment. Based on the CEQA significance criteria, the proposed Specific Plan would have an adverse environmental impact if it were to cause the deterioration of existing recreational resources through increased use, or require the construction or expansion of recreational facilities that may have an adverse effect on the environment. It can be anticipated that increases in the number of permanent residents without development of additional recreational resources could result in proportionately greater use of parks and recreational facilities in the Planning Area, which may result in physical deterioration. However, population increases are only one factor in determining whether parks and recreational facilities would deteriorate through increased used. Other variables include park design, age, infrastructure, how the park is being used and whether adequate levels of maintenance are provided.

As stated above, the City currently has approximately 11 acres of parkland per 1,000 residents, which is just below the standard of 12 acres per 1,000 residents listed in the General Plan. Development under the Specific Plan is estimated to generate approximately 1,379 new residents over the course of 20 years. Therefore, growth related to the Specific Plan would minimally reduce this ratio in 20 years to about 10.4 acres per 1,000 residents. Although no specific parks or recreational facilities are proposed by the Specific Plan, other parks and open space improvements are currently proposed or planned in Downtown that would serve residents of Specific Plan-related developments. The most prominent of these projects is the multi-purpose Oxbow Commons. This project is a planned flood protection bypass channel funded by the federal government and local sales tax (Measure A) and managed by Napa County Flood Control and Water Conservation District that would also serve as a park when not utilized for flood protection purposes. A series of trails would provide an alternative pedestrian/bicycle connection under Soscol Avenue from the Oxbow Commons area to First Street and Pearl Street in the downtown core. In addition, the currently fenced-off China Point Park will be replaced by the mouth of the bypass and a new park will be constructed at the southwest corner of Soscol Avenue and First Street called China Point Overlook. Additionally, another park began construction in 2011 at the southwest corner of Third Street and Soscol Avenue (Riverfront Green). Another planned improvement is the riverfront trail, which would provide a north-south pedestrian route along the Napa River and include additional recreation facilities. Other parks noted in the Specific Plan include the relocation of the Skate Park potentially to Solomon Park, the potential replacement of the surface parking lot at the southwest corner of Main and Pearl streets with a ½ acre park following replacement of the parking spaces and the expansion of the remainder of Heritage Park to create a linear parkway along the top of the banks of Napa Creek in the block bounded by Pearl/Coombs/Clinton/Main streets.

In conclusion, although no specific parks are proposed by the Specific Plan, other parks and recreation areas currently planned for the Planning Area, as well as dedication of parkland/in-lieu fees required of future residential development would reduce the increased demand for parks generated by new residents living in Downtown. Additional residents would also be anticipated to

utilize other parks in the immediate vicinity of the Planning Area, including the 9.5-acre Fuller Park and the 12.7-acre Oxbow Preserve. Therefore, impacts regarding parks and recreation would be less than significant.

Mitigation: None Required.

Cumulative Impacts

Impact 4.K-2: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending and reasonably foreseeable future projects within and around Downtown, could potentially result in an increased demand for recreational facilities. (Less than Significant)

The proposed Specific Plan would facilitate population growth, which would combine with other growth in the City to increase the demand for parks and recreational facilities. Therefore, growth facilitated by the Specific Plan, in combination with other past, present, and reasonably foreseeable future projects in the vicinity, would contribute to a cumulatively considerable deficit of parkland per resident. Environmental review for the construction of new park and recreation facility expansion, either facilitated by the Specific Plan or required as mitigation for individual projects, would be conducted on a project-specific basis as needed and appropriate. This would ensure that services to accommodate current and future growth could be reasonably provided within the cumulative context. Therefore, the effect of the development facilitated by the Specific Plan, in combination with other foreseeable development, would not be cumulatively significant.

Mitigation: None Required.

References – Recreation and Open Space

City of Napa, *Envision Napa 2020: General Plan*, 1998. Amended September 2009.

City of Napa, *Park and Facilities Master Plan*. Adopted February 16, 2010.

4.L Transportation and Traffic

This section describes transportation and circulation conditions in the Planning Area, and assesses the Specific Plan in terms of whether it would (1) conflict with adopted policies or programs supporting alternative transportation (e.g., pedestrian, bicycles, and public transit travel modes), (2) cause an increase in traffic that is substantial in relation to background traffic load and capacity (i.e., increase congestion and delay at intersections), (3) exceed level of service standards established by Caltrans and by the City of Napa, (4) substantially increase traffic safety hazards or (5) result in inadequate emergency access. Both short-term and long-term project effects are analyzed to determine their significance under CEQA. For project impacts that are determined to be significant, mitigation measures have been identified to avoid or reduce those impacts.

Setting

The City of Napa is located in Northern California, approximately 50 miles northeast of San Francisco in Napa County. Within Napa, Downtown is in the central part of the City between State Route 121 and State Route 29. For the purpose of this EIR, the Planning Area is bounded on the east by the Napa River; on the south by Division Street and Third Streets; and on the west by Jefferson Street. The northern boundary generally follows the edge of the "Downtown Commercial" zoning area boundary adjacent to northern residential neighborhoods along Polk and Caymus streets west of Soscol Avenue. Planning Area boundaries extend east to include the Oxbow Market and former Copia area east of Soscol Avenue. **Figure 4.L-1** illustrates the Planning Area, along with the existing circulation network within and around Downtown.

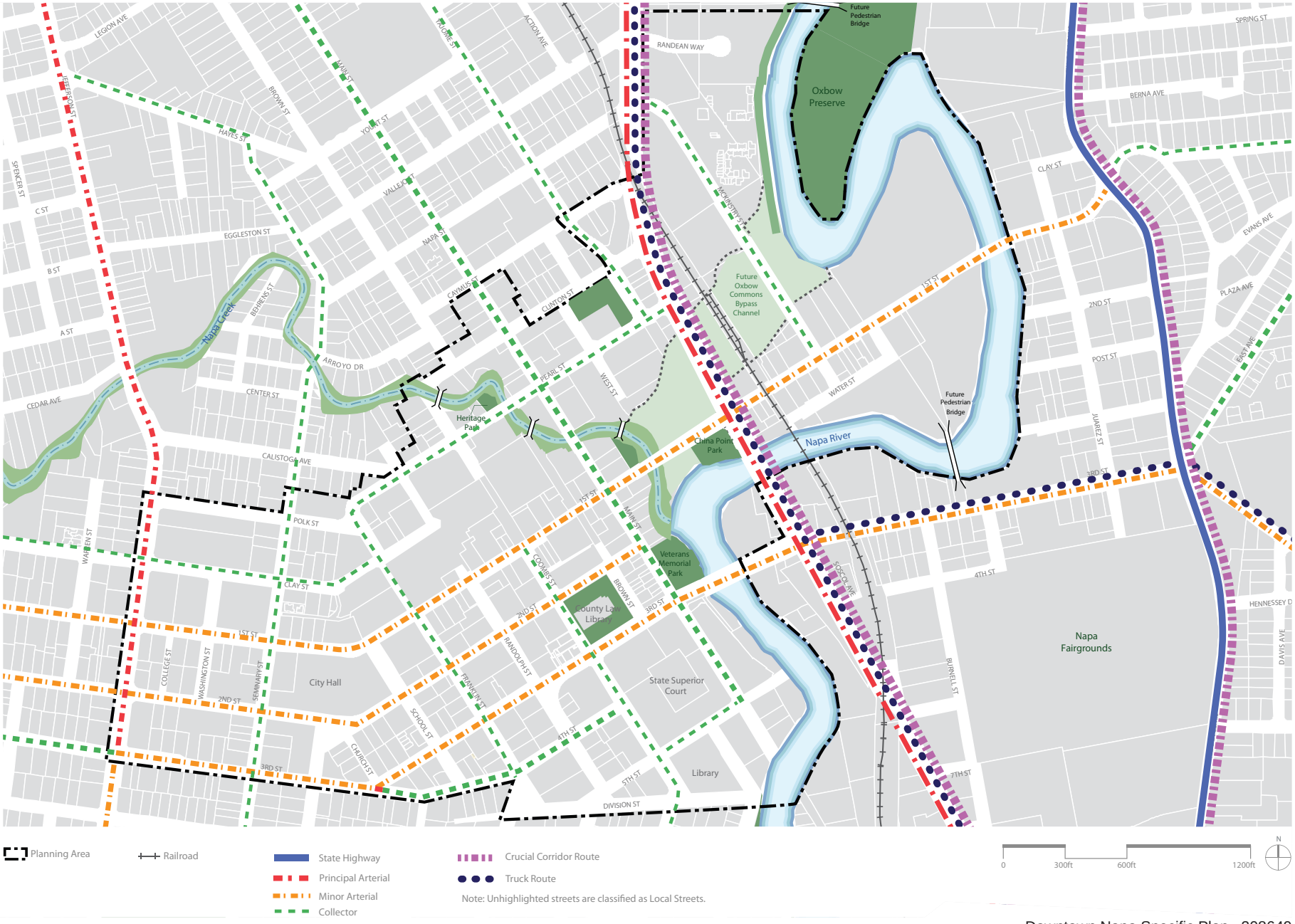
Regional Roadways

The following state highways do not traverse directly through the Planning Area; however, they are identified below as they serve as important regional connections to the Downtown area:

State Route 29 (SR 29) is a four-lane, median-divided state highway that primarily runs north-south connecting Napa to regional destinations such as Vallejo to the south and Calistoga and St. Helena to the north. SR 29 is located west of Downtown Napa and can be accessed via the First Street interchange.

State Route 121 (SR 121) is a two- to four-lane state highway that runs primarily north-south, extending from Sonoma County in the southwest, north through the City of Napa, then northeast beyond the Napa city limits. SR 121 is located to the east of the Planning Area where the facility is also referred to as the Silverado Trail.

State Route 221/Napa-Vallejo Highway (SR 221) is a north-south state highway that becomes SR 121/Soscol Avenue at its intersection with Imola Avenue. There are two lanes in each direction divided by a raised median.



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-1

Existing Circulation System

Local Roadways

Arterials

First Street is a two-lane, undivided east-west arterial that runs from Browns Valley Road to its terminus just east of Silverado Trail. In Downtown, between Main Street and California Boulevard, First Street is one-way in the westbound direction, forming a one-way couplet with the corresponding eastbound segment of Second Street.

Second Street is a two-lane, east-west arterial that extends from California Boulevard to Main Street. Second Street is a one-way roadway running in the eastbound direction, forming a one-way couplet with the corresponding westbound segment of First Street.

Third Street is primarily a two-lane, east-west arterial roadway that runs from California Boulevard to Coombsville Road. Within the Planning Area, Third Street is one-way in the westbound direction between Randolph Street and Church Street, forming a one-way couplet with the corresponding eastbound segment of Fourth Street.

Soscol Avenue is a four-lane, north-south arterial roadway within the Planning Area that runs from Trancas Street to Imola Avenue. There is a raised median between Maplewood Avenue (just north of Lincoln Avenue) and the Soscol railroad crossing. South of the Planning Area, from the point where the Silverado Trail merges with Soscol Avenue to Imola Avenue, Soscol Avenue is also referred to as SR 121.

Collectors

Fourth Street is a two-lane east-west collector that extends approximately four city blocks from Third Street to Coombs Street. Fourth Street is one-way in the eastbound direction, forming a one-way couplet with the corresponding westbound segment of Third Street.

Coombs Street is a two-lane, north-south roadway that is discontinuous between First Street and Pearl Street. The southern segment extends from Imola Avenue to First Street and operates as a collector. The northern segment extends from Pearl Street north to Clinton Street and operates as a local street.

Main Street is a two-lane, north-south collector roadway that runs Fifth Street to Pueblo Avenue.

Seminary Street is a two-lane, north-south collector roadway that extends from Pine Street to Hayes Street. The segment between Laurel Street and Hayes Street is classified as a collector street, while the remaining segment is classified as a local street.

Franklin Street is a two-lane, north-south collector roadway that runs from Coombs Street to Pearl Street. The segment from Pearl Street to Fourth Street is classified as a collector street. The segment from Fourth Street to Coombs Street is classified as a local street.

Yajome Street is a two-lane collector that runs north-south from Pearl Street to Lincoln Avenue.

Pearl Street is a two-lane, east-west collector that connects Franklin Street to Soscol Avenue. Pearl Street crosses the Napa Creek just east of Coombs Street.

Existing Traffic Conditions

Level of Service Analysis Methodologies

The City uses level of service (LOS) criteria to measure of the quality of the overall operating characteristics of a street or highway. Factors involved in determining the level of service include speed, safety, travel time, traffic conflicts and interruptions, freedom to maneuver, driving convenience and comfort, and operating costs. Level of service is dependent upon traffic volume and composition of traffic.

Traffic conditions are typically measured through the evaluation of peak hour levels of service (LOS) that characterize traffic conditions associated with varying levels of traffic. Level of service is a measure of congestion that ranges from LOS A (free-flow condition) to LOS F (long delays and congestion). **Table 4.L-1** provides a definition for each level of service category.

Signalized Intersections

Intersection level of service is measured as the average control delay in seconds per vehicle. Control delay is the portion of the total delay experienced by drivers at intersections that is attributable to traffic signal operation. It includes the delay for decelerating to a stop at a signal, moving slowly in a queue of vehicles, stopped delay, and acceleration after the signal turns green. To evaluate the signalized intersection level of service, the 2000 Highway Capacity Manual (Transportation Research Board, National Research Council) methodology was used per City of Napa Traffic Study Guidelines. Table 4.L-1 summarizes the relationship between the level of service rating and control delay for signalized intersections, as well as unsignalized.

Unsignalized Intersections

To evaluate unsignalized intersections, the operations method of the Highway Capacity Manual, Transportation Research Board, National Research Council, 2000 was utilized per City of Napa Traffic Study Guidelines. This methodology determines the LOS based on delay. The delay is for the worst approach when the intersection is controlled with one- or two-way stop signs. The delay is an average for all approaches when the intersection is controlled with all-way stop signs. The LOS criteria for unsignalized intersections are summarized in Table 4.L-1.

As stated in the section on the General Plan's Goals and Policies, the General Plan establishes a midrange LOS D for arterial and collector street intersections within the City with the exception of a midrange LOS E for intersections in the downtown bounded by Soscol Avenue, First Street, California Boulevard, and Third Street.

TABLE 4.L-1
DEFINITIONS FOR INTERSECTION LEVEL OF SERVICE

Unsignalized Intersections		Level of Service Grade	Signalized Intersections	
Description	Average Total Vehicle Delay (Seconds)		Average Control Vehicle Delay (Seconds)	Description
No delay for stop-controlled approaches.	≤10.0	A	≤10.0	Free Flow or Insignificant Delays: Operations with very low delay, when signal progression is extremely favorable and most vehicles arrive during the green light phase. Most vehicles do not stop at all.
Operations with minor delay.	>10.0 and ≤15.0	B	>10.0 and ≤20.0	Stable Operation or Minimal Delays: Generally occurs with good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average delay. An occasional approach phase is fully utilized.
Operations with moderate delays.	>15.0 and ≤25.0	C	>20.0 and ≤35.0	Stable Operation or Acceptable Delays: Higher delays resulting from fair signal progression and/or longer cycle lengths. Drivers begin having to wait through more than one red light. Most drivers feel somewhat restricted.
Operations with increasingly unacceptable delays.	>25.0 and ≤35.0	D	>35.0 and ≤55.0	Approaching Unstable or Tolerable Delays: Influence of congestion becomes more noticeable. Longer delays result from unfavorable signal progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop. Drivers may have to wait through more than one red light. Queues may develop, but dissipate rapidly, without excessive delays.
Operations with high delays, and long queues.	>35.0 and ≤50.0	E	>55.0 and ≤80.0	Unstable Operation or Significant Delays: Considered to be the limit of acceptable delay. High delays indicate poor signal progression, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
Operations with extreme congestion, and with very high delays and long queues unacceptable to most drivers.	>50.0	F	>80.0	Forced Flow or Excessive Delays: Occurs with oversaturation when flows exceed the intersection capacity. Represents jammed conditions. Many cycle failures. Queues may block upstream intersections.

SOURCE: Transportation Research Board, Special Report 209, *Highway Capacity Manual*, updated 2000.

Existing Traffic Volumes and Intersection Levels of Service

A total of 15 study intersections have been identified for this traffic analysis. The study intersections were determined, in conjunction with the City of Napa, to be those where majority of the project trips would be focused and where potential traffic impacts are most likely to occur. All study intersections are signalized intersections except the SR 29 Northbound Off-Ramp / First Street intersection, which is two-way stop-controlled. The study intersection locations and lane configurations are illustrated in **Figures 4.L-2** and **4.L-3**, respectively**,** and are listed below:

1. Jefferson Street / First Street
2. Jefferson Street /Second Street
3. Jefferson Street /Clay Street
4. Main Street / Pearl Street
5. Soscol Avenue / Pearl Street
6. Soscol Avenue /First Street
7. Soscol Avenue /Third Street
8. Coombs Street / Third Street
9. Main Street / First Street
10. Main Street / Third Street
11. Silverado Trail / First Street
12. Silverado Trail / Third Street
13. SR 29 Northbound Off-Ramp / First Street
14. SR 29 Southbound Ramps / First Street
15. California Boulevard / First Street

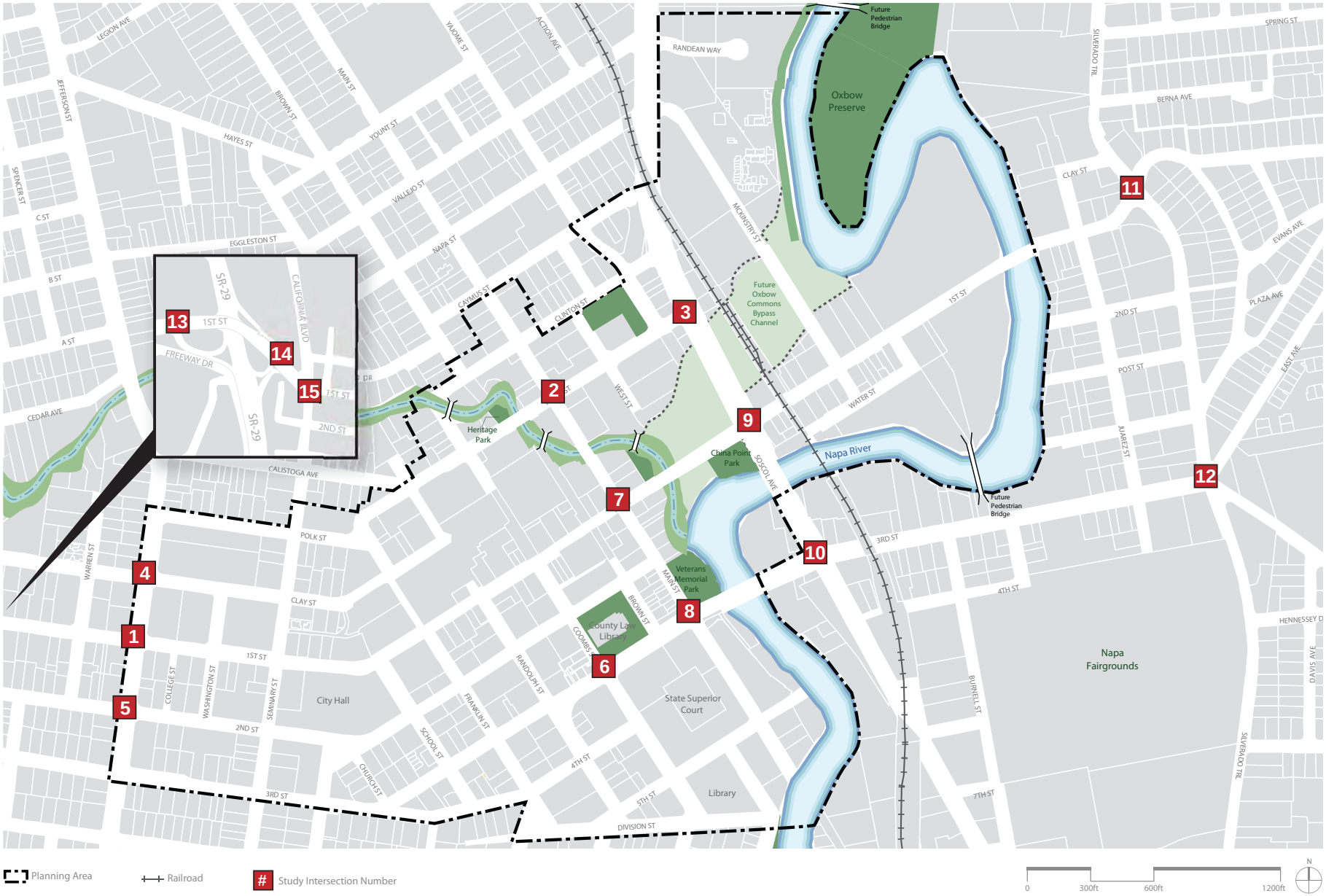
Existing Peak Hour Traffic Volumes at Intersections

Peak period intersection turning movement counts were collected for all study intersections during June through September 2009, between the hours of 7:00-9:00 AM and 4:00-6:00 PM. Traffic counts were collected on Tuesdays, Wednesdays and Thursdays only. It should be noted that a number of new development projects have been completed within the vicinity of Downtown since the counts were originally performed. A field visit was conducted to observe intersection geometry, intersection control and general traffic conditions. The existing peak hour intersection volumes are presented in **Figure 4.L-4**.

Existing Intersection Levels of Service

Results of the existing conditions level of service analysis at all 15 study intersections during the AM and PM peak hours are summarized in Table 4.L-2.

As shown in **Table 4.L-2**, the study intersections operate at acceptable levels of service, with the exception of the SR 29 NB Off-Ramp / First Street intersection, which operates at LOS F during both the AM and PM peak hours. The results of a peak hour traffic signal warrant analysis reveal that existing traffic conditions at the intersection of SR 29 NB Off-Ramp / First Street meet peak hour warrant criteria for the AM and PM peak hours. While intersections that operate at poor levels of service and meet peak hour warrant conditions have a higher likelihood of meeting one

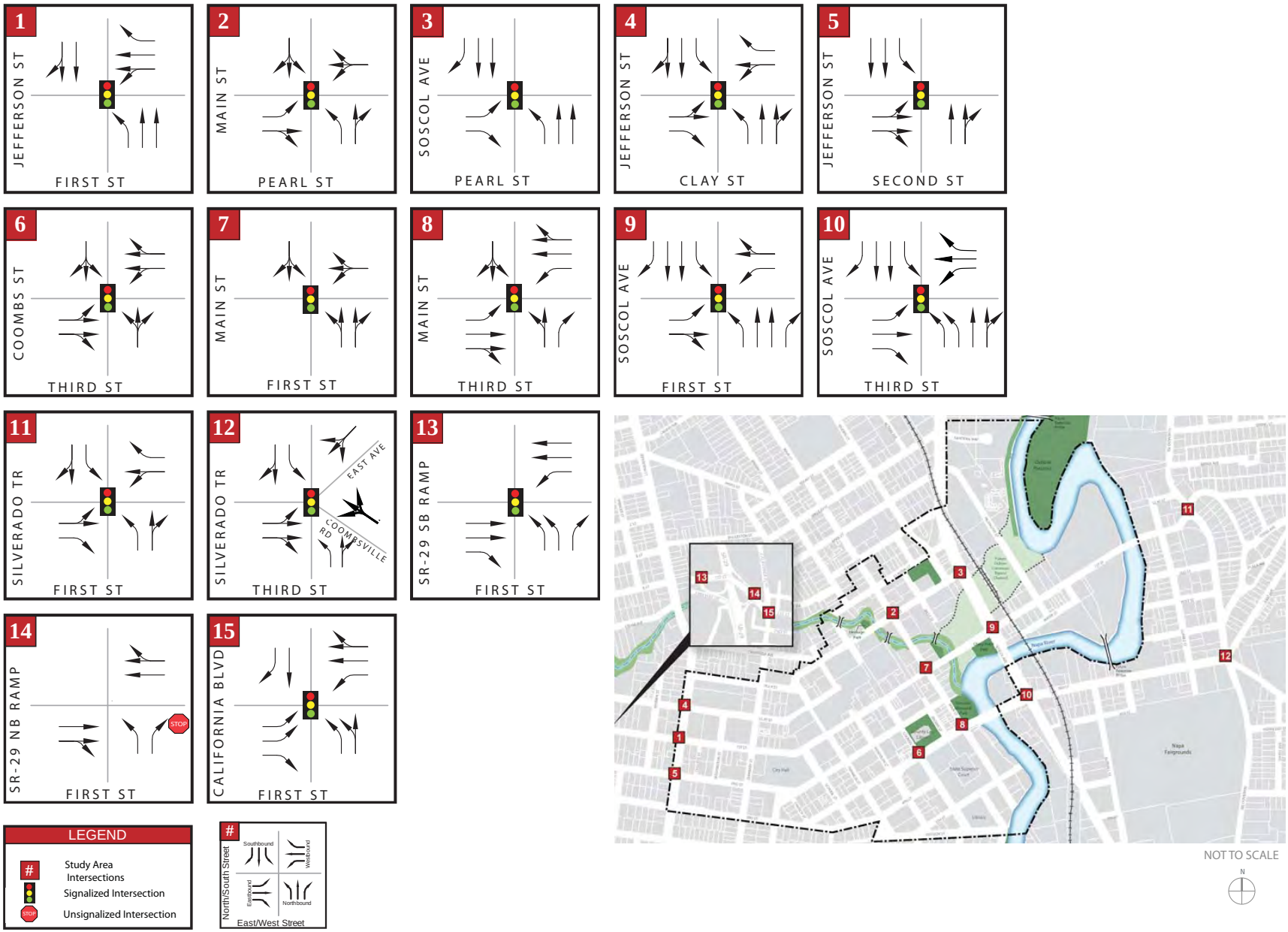


SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-2

Study Intersection Locations

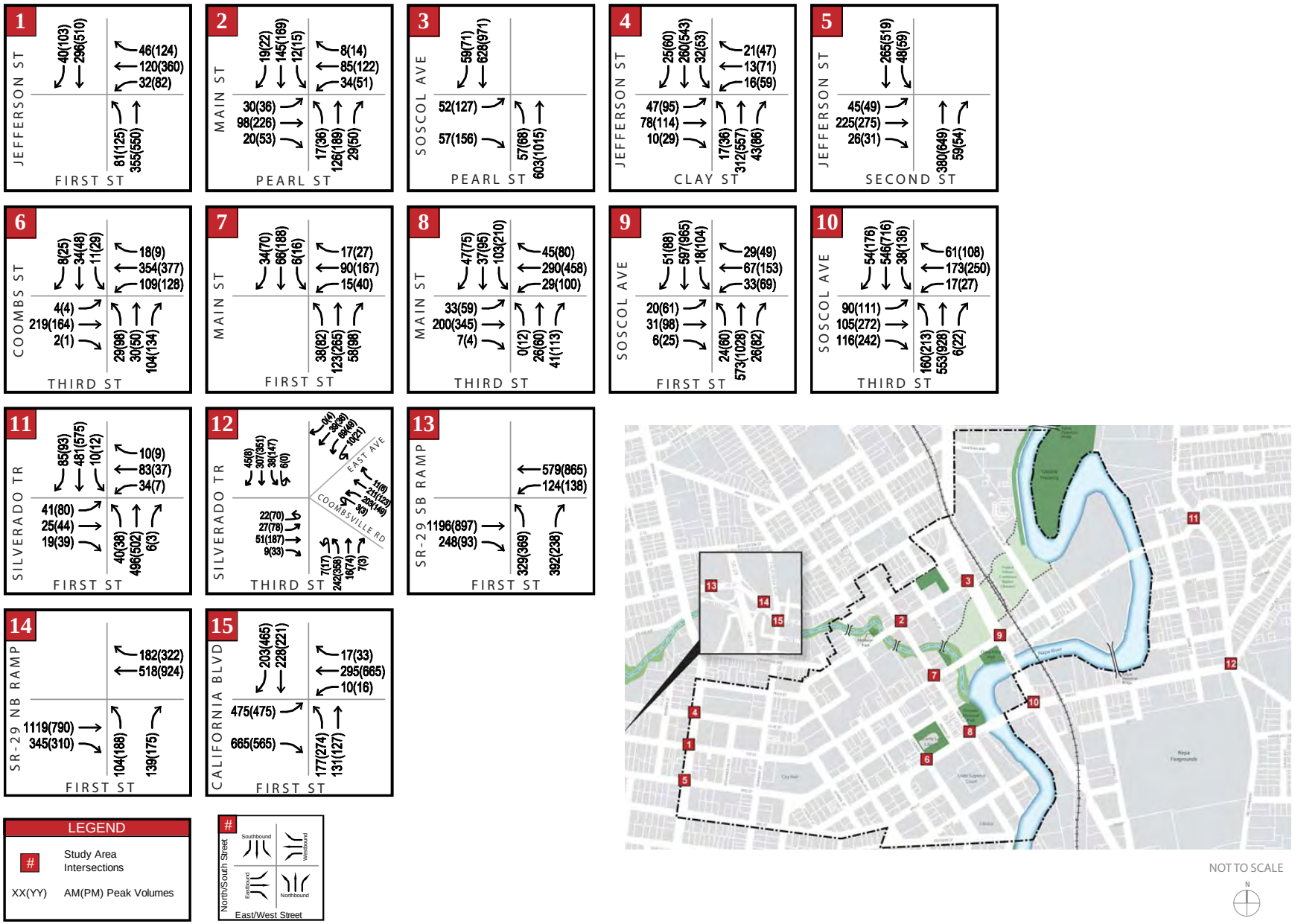


SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-3

Existing Lane Geometry and Traffic Control



SOURCE: MIG

Figure 4.L-4

Existing Peak-Hour Intersection Volumes

TABLE 4.L-2
EXISTING INTERSECTION LEVELS OF SERVICE (LOS)

No.	Intersection	Traffic Control	LOS Standard	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Jefferson Street / First Street	Signal	E	14.0	B	17.6	B
2	Main Street / Pearl Street	Signal	D	11.4	B	12.2	B
3	Soscol Avenue / Pearl Street	Signal	D	9.5	A	15.2	B
4	Jefferson Street / Clay Street	Signal	D	17.6	B	19.3	B
5	Jefferson Street / Second Street	Signal	E	14.8	B	13.7	B
6	Coombs Street / Third Street	Signal	E	7.4	A	9.9	A
7	Main Street / First Street	Signal	E	8.4	A	8.9	A
8	Main Street / Third Street	Signal	E	23.4	C	27.2	C
9	Soscol Avenue / First Street	Signal	E	14.7	B	20.2	C
10	Soscol Avenue / Third Street	Signal	E	28.0	C	30.3	C
11	Silverado Trail / First Street	Signal	E	18.3	B	16.4	B
12	Silverado Tr. / Third St. / East Ave. / Coombsville Rd.	Signal	E	45.1	D	60.4	E
13	SR 29 SB Ramps / First Street	Signal	E	30.7	C	19.4	B
14	SR 29 NB Off-Ramp / First Street	OWSC	E	**128.3**	**F**	**184.4**	**F**
15	California Boulevard / First Street	Signal	E	28.6	C	34.0	C

LOS based on 2000 Highway Capacity Manual.
Unacceptable LOS shown in **Bold**.
OWSC – One-way Stop-controlled (LOS reported for worst-case approach)

SOURCE: Kimely-Horne Associates (2011)

or more of the other volume-related signal warrants, this analysis does not replace a complete traffic signal warrant analysis that considers additional factors, such as pedestrian volume and accident history.

The level of service standard for a signalized intersection located within the Downtown bounded by Soscol Avenue, First Street, California Boulevard and Third Street, and for selected segments of Jefferson Street and Soscol Avenue, is midrange LOS E, which would equate to a control delay of 67.5 seconds/vehicle. The intersection of Silverado Trail/Third Street/East Avenue/ Coombsville Road operates at LOS E during the PM peak hour; however, the average delay is 60.4 seconds/vehicle, which remains below the acceptable level of service threshold. Detailed LOS calculations are included in **Appendix E**.

Emergency Access

There are several areas within the Planning Area where it is difficult for fire apparatus to maneuver through intersections. In general, any right turn onto a two lane street requires the fire trucks to swing into the oncoming lane either before the turn or during the turn. At times, fire

trucks must wait for oncoming traffic to clear which delays response times. Specifically, the intersection of Second Street/Main Street is often congested during the day and requires fire trucks to wait on Second Street until the intersection clears before they are able to make a left turn onto Main Street. The intersection of Main Street/First Street is typically avoided unless the fire department has a response in the immediate vicinity.

Other areas wherein the fire department has identified difficulty accessing and maneuvering fire apparatus include Coombs Plaza and the parking lot that serves the Hatt Building and the Napa River Inn.

Crucial Corridors

The City of Napa General Plan identifies several routes that serve a particularly vital role in communitywide circulation and in providing accessibility to key community facilities as Crucial Corridors. The City's key circulation policies in its traffic management strategy have been established to reserve traffic capacity within these major corridors for communitywide circulation. In general, Crucial Corridor Policies limit additional driveways to these streets and discourage high traffic-generating uses.

The following roads have been designated as Crucial Corridors: Soscol Avenue; Silverado Trail from Soscol Avenue to Trancas Street (see Figure 4.L-1).

Existing Bicycle and Pedestrian System

Pedestrian Circulation

A key transportation feature of any downtown is a robust pedestrian circulation system. This is comprised of a system of small, or pedestrian-scaled, blocks with a continuous system of sidewalks, short crossings at all intersections, and the absence of major barriers to pedestrian travel. Major barriers may include physical features such as rivers or topography, or may include wide streets or freeways. Downtown Napa provides the key features that make up a robust pedestrian system, but also contains some barriers.

There are currently sidewalks or pedestrian paths along nearly all of the roadways within the Planning Area. All of the intersections are either stop or signal controlled allowing for pedestrian crossing. At stop controlled intersections, painted crosswalks are usually provided at adjacent intersections. At signalized intersections, crosswalks and pedestrian signals are provided.

Sidewalk bulbouts are provided at several intersections. Bulbouts are curb extensions where the curb widens into the street, which effectively narrows the roadway width and provides a shorter distance for pedestrian crossings. Even at intersections without bulbouts, for the most part, pedestrian crossings are short (less than 60 feet). Painted pedestrian crosswalks are provided at each leg of the study intersections. Barriers to pedestrian circulation in the Planning Area include the Napa River, the rail line running alongside Soscol Avenue and high vehicle volume streets including Soscol Avenue and Third Street. Crossings of the Napa River are concentrated in the

First and Third Street corridors, such that north and south of these corridors, there are significant gaps between crossings. However, the First Street and Third Street Bridges over the Napa River connect the two most important subareas of the Planning Area: the downtown core and the Oxbow area. The Soscol Avenue intersections at both First and Third Streets, with their wide crossings and high traffic volumes, an adjacent rail line, and lack of pedestrian-oriented land uses, comprise the greater pedestrian barriers.

Planned trails in the U.S. Army Corps of Engineers Oxbow Commons Bypass project would provide an alternative pedestrian/bicycle connection under Soscol Avenue from the Oxbow area to First Street in the Downtown core. The planned River Trail also would provide an attractive north-south transportation route through the Planning Area, as well as a recreational amenity.

The Third Street corridor is less of a barrier due to its short blocks and relatively short signalized crossings, as well as the strong pedestrian-orientation of the adjacent land uses throughout most of its length.

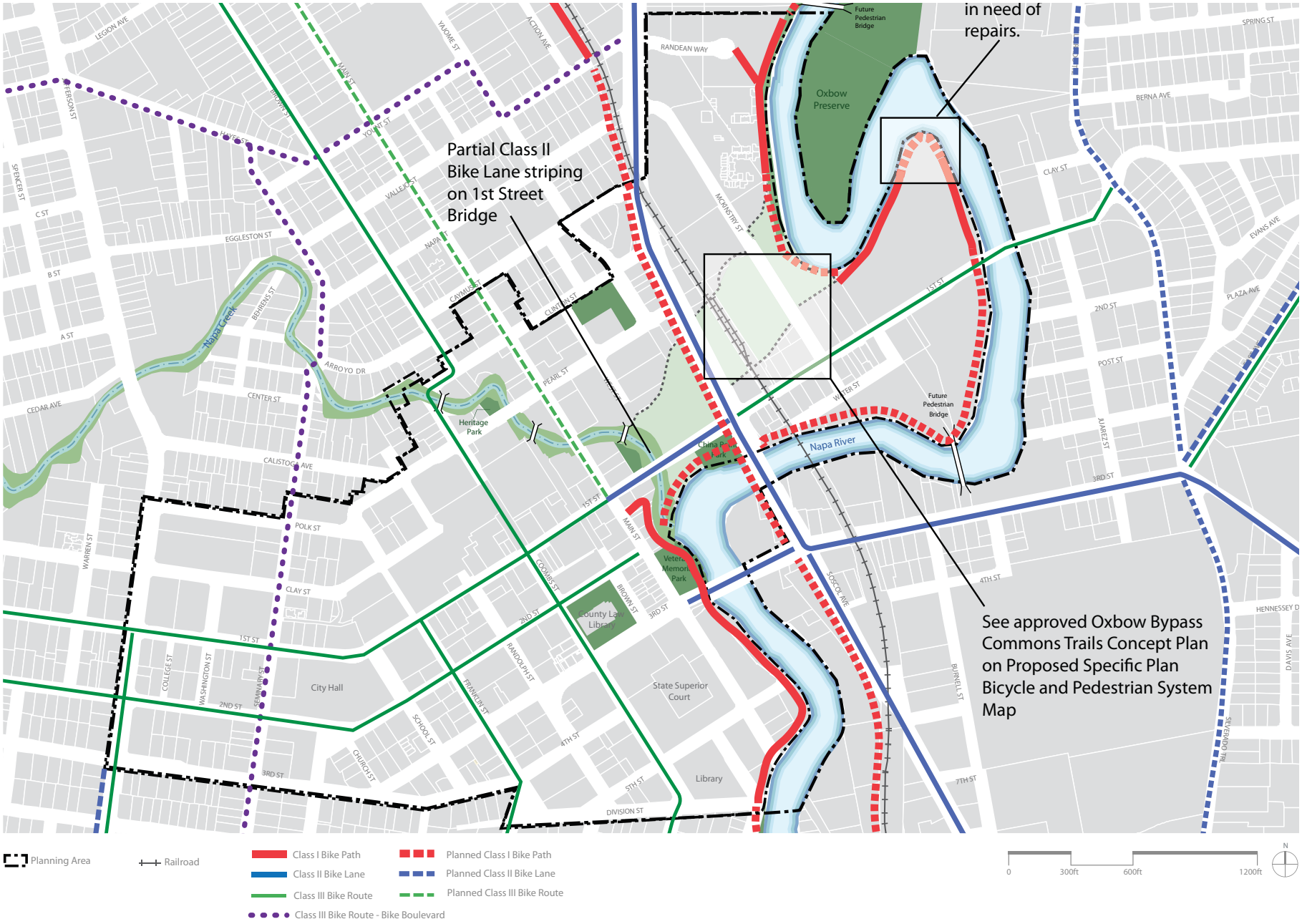
An additional barrier to pedestrian travel is the past practice of aggregating smaller blocks to create single large development project such as the Napa Town Center. While the shopping center itself provides a pleasant and attractive walking environment for customers, it makes it difficult for visitors to circulate (by any mode) through or around the development by breaking up the intuitive nature of the historic street grid.

Bicycle Circulation

The City of Napa bicycle network extends throughout the City, with many routes traveling directly through the Planning Area. The City has level terrain and a variety of scenic bicycle routes. The City's General Plan classifies bikeways according to the California Department of Transportation (Caltrans) classification as follows:

- Class I Bikeways (Bike Path or Trail): Dedicated bike path which is separated from motorists by a space or physical barrier, or is on a separate right-of-way.
- Class II Bikeways (Bike Lane): Bike lane on a roadway with restricted right-of-way, designated by signs and pavement marking for the use of bicycles.
- Class III Bikeways (Bike Routes): Bike route with shared right-of-way designated by signs on roadways.

Figure 4.L-5 shows the existing Napa bicycle and pedestrian system. Currently, there are limited existing Class I bikeways serving the Planning Area. Multi use paths exist on portions of the Napa River (one segment is found along the riverfront promenade from Fifth to First Streets; and the other along the River in the Oxbow area behind Copia and the new hotels.) Another multi use path has recently been completed west of Soscol Avenue adjacent to the existing railroad line from Vallejo Street north to Trancas Street. The City of Napa Citywide Bike Plan shows proposed Class I bike paths east of Downtown along the Napa River (the Napa River Trail). It should also be noted that there is a planned multi-use path connection through the flood control



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-5

Existing Planned Bicycle and Pedestrian System

project's Oxbow Commons bypass channel, connecting the trail around the Oxbow to the downtown at Main Street between First and Pearl streets. The Napa River Trail would also provide connections to regional facilities including the Bay Trail and Ridge Trail.

Class II Bikeways currently exist along Soscol Avenue, Third Street (in certain locations) and Coombsville Road. Class III Bikeways are located along Coombs Street, Jefferson Street, Franklin Street, Soscol Avenue, First Street and Second Street. Class II bike lanes are the one type of facility lacking in the downtown, both north-south and east-west. The Downtown is served by one north-south Class II corridor (Soscol Avenue) and good connections both existing and planned to the east along Third Street, Silverado Trail, East Avenue and Coombsville Road. There are planned Class II lanes on Jefferson and Franklin Streets approaching the downtown from the south, but terminate at Third Street. The Seminary Bicycle Boulevard and Class III routes provide corridors for north-south travel.

The City of Napa General Plan (2007) includes a policy to study the feasibility of establishing Bicycle Boulevards in the City of Napa. Bicycle Boulevards are enhanced Class III bike routes with shared right-of-way designated by more pavement legends and road signs. To date, the City has established Bicycle Boulevards on Seminary Street, Oak Street, Hayes Street, and Franklin Street.

Existing Transit System

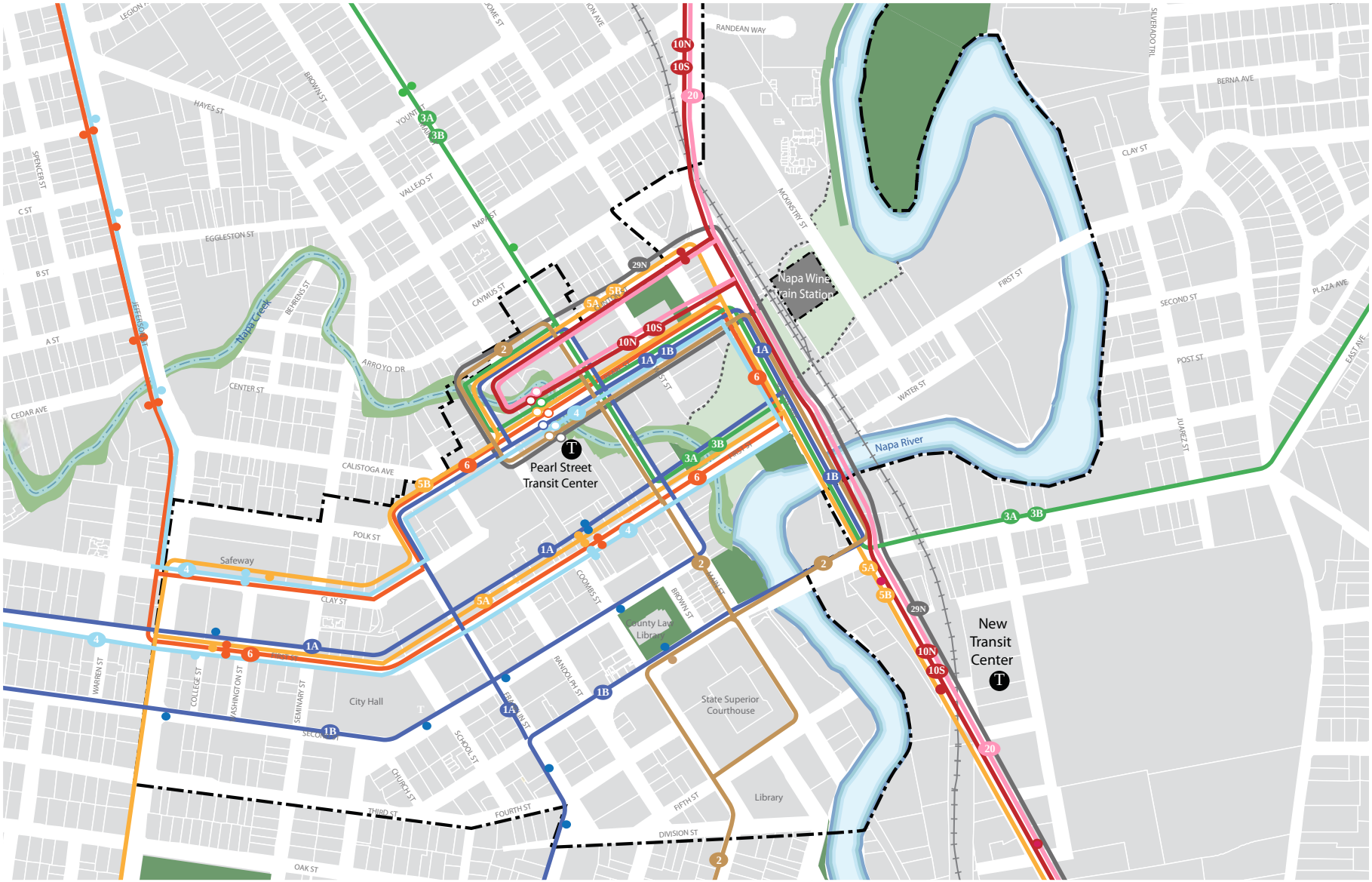
Napa Public Transit System

Napa transit service is provided by the VINE and miscellaneous paratransit services, all of which are operated by the Napa County Transportation and Planning Agency (NCTPA). **Figure 4.L-6** shows the existing public transit routes and location of bus stops within the Downtown Planning Area, which is described below. A Napa Downtown Trolley was discontinued in June 2009.

The Transit Center, located at the southeast corner of the Coombs Street /Pearl Street intersection, is the key transit stop and transfer location for local and regional bus routes. As a result of circulation changes created by the Flood Project, and to provide an adequate site, NCTPA plans to relocate the Transit Center to a location east of Soscol Avenue adjacent to the rail line. The future location would be between Sixth Street and Fourth Street. Note that upon completion of the new transit center, the routes will be modified but at this time, the new routes are unknown.

The VINE

The VINE serves the cities of Napa, Santa Rosa, Calistoga, St. Helena, Yountville, American Canyon and Vallejo, as well as the communities of Rutherford and Oakville. Within the Planning Area, there are currently eleven bus routes (nine local routes and two regional routes) with service between 5:20 AM and 9:25 PM. All eleven routes stop at the VINE Transit Center.



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-6

Existing Transit Routes

The VINE runs nine local routes to the Planning Area:

- *Route 1A - Old Sonoma/Brown's Valley*: VINE Transit Center, Premium Outlets and the County Health Department are serviced by this route. Buses usually operate on 60-minute headways.

- *Route 1B - Brown's Valley/Old Sonoma*: VINE Transit Center, Premium Outlets and the County Health Department are serviced by this route. Buses usually operate on 60-minute headways.

- *Route 2 - Coombs/Shetler*: VINE Transit Center and Black Bear Diner are serviced by this route. Buses usually operate on 60-minute headways.

- *Route 3A - Alta Heights/Pueblo Vista*: VINETransit Center and the Pear Tree Villa are serviced by this route. Buses usually operate on 60-minute headways.

- *Route 3B - Pueblo Vista/Alta Heights*: VINE Transit Center and the Pear Tree Villa are serviced by this route. Buses usually operate on 60-minute headways.

- *Route 4 - North Jefferson/Salvador*: VINE Transit Center and Napa High School are serviced by this route. Buses usually operate on 60-minute headways and one additional school route operates between 3:00 PM and 3:15 PM.

- *Route 5A - South Jefferson/Imola*: VINE Transit Center and County Health Department are serviced by this route. Buses usually operate on 60-minute headways.

- *Route 5B - Imola/South Jefferson*: VINE Transit Center and County Health Department are serviced by this route. Buses usually operate on 60-minute headways.

- *Route 6 - North Jefferson/Vine Hill*: VINE Transit Center, Napa High School, Redwood Middle School and Justin Siena High School are serviced by this route. Buses usually operate on 60-minute headways and two additional school routes operate between 7:20 AM and 7:35 AM in the morning and between 3:04 PM and 3:18 PM in the afternoon.

- *Route 20 Limited - Redwood Park and Ride Lot/Napa Airport:* Redwood Park and Ride Lot, VINE Transit Center, Dey Labs, Soscol/Gassar, Napa Airport. Limited bus service is operated Monday through Saturday in the southbound direction from 7:09 AM to 9:21 AM and in the northbound direction from 7:50 AM to 8:13 AM and from 5:02 PM to 7:10 PM.

The VINE operates two regional routes to the Planning Area:

- *Route 10 - Calistoga/Vallejo*: Downtown Calistoga, Bothe State Park, St. Helena City Hall, Rutherford, Oakville, Yountville Veteran's Home, Solano and Wine Country, Kaiser Permanente, VINE Transit Center, Napa Valley College, American Canyon Recreation Center, Kaiser Hospital, Sereno Transit Center and Vallejo Ferry are serviced by this route. Buses usually operate on 60-minute headways in the weekdays, 90- to 120-minute headways on Saturdays and 90- to 180-minute headways on Sundays.

- *Route 29 - Calistoga/El Cerrito del Norte BART*: Calistoga Lincoln Bridge, St. Helena Post Office, Yountville, VINE Transit Center in Napa, Napa Marriott, Imola Park and Ride, Napa Valley College, American Canyon Post Office, Vallejo Ferry Terminal and El Cerrito

del Norte BART Station. Buses usually operate on 30- to 60-minute headways and only operates on weekdays between 5:25 AM and 9:40 AM in the morning and 2:55 PM to 8:27 PM in the evening.

Paratransit Service

The VINE Go paratransit system provides service to ADA and senior persons within Napa County. Service is provided to people at the northern limit of Calistoga to the southern limit of American Canyon, with limited service to parts of Vallejo. Operating hours are from 5:20 AM to 9:30 PM on weekdays, 6:00 AM to 8:30 PM on Saturdays, and 8:00 AM to 7:00 PM on Sundays.

Rail Service

Currently, there is no commuter rail system operating in Napa. The Napa Valley Wine Train, a privately operated service oriented towards tourism, passes through Napa County, extending from the City of Napa north to St. Helena. The Wine Train's main station is located in Napa on McKinstry Street, just north of the Soscol Avenue / First Street intersection. Occasional freight trips are also operated along the same rail line that the Wine Train uses.

The Wine Train's rail lines are part of a larger rail system that connects Napa to Vallejo in the south, Sonoma and Marin counties to the west, and Fairfield and Benicia to the east. Most of these rail connections are operated as freight lines by the California Northern Railroad (CNR).

Future Transportation Improvements

The following transportation projects, as identified in the Napa General Plan, and in recent traffic studies, are proposed within the general vicinity of the Planning Area:

- Gasser Drive is planned to connect to Soscol Avenue and Silverado Trail at a new intersection north of the current intersection of Soscol Avenue/Silverado Trail. Additional turn lanes may be anticipated at this intersection.
- The five legged intersection of Third/Silverado/Coombsville/East is planned to be improved; however, there is no approved design to date.
- The City’s bicycle routes map was amended in 2007 to provide Class II bike lanes for Silverado Trail and Soscol Avenue from Silverado Trail to Third Street.
- Signalization of the Silverado Trail/Trancas Street/Monticello Road intersection before 2020, which is under the County’s jurisdiction.
- The First Street Bridge improvements over SR 29; no specific design has been approved to-date.
- The General Plan Transportation Element identifies a project to widen the southbound right-of-way along Soscol Avenue at the intersection of Soscol Avenue and Silverado Trail to provide one through lane and two left-turn lanes. Although this is currently called for, it will be reevaluated in conjunction with future General Plan updates along with a study of eliminating the left turns on Soscol Avenue southbound.

- Implement minor widening of Soscol Avenue between Silverado Trail and Lincoln Avenue to provide four through lanes with a center median landscaping and turn lanes. (Completed) Reserve right-of-way to provide for six lanes between Imola Avenue and Silverado Trail.

Regulatory Setting

This section identifies the policies related to the physical environment and that pertain to the project's potential effects to traffic and transportation.

California Department of Transportation (Caltrans)

Caltrans builds, operates, and maintains the State Highway system, including the Interstate Highway system. Caltrans' mission is to improve mobility statewide. The department operates under strategic goals to provide a safe transportation system, optimize throughput and ensure reliable travel times, improve the delivery of state highway projects, provide transportation choices, and improve and enhance the states investments and resources. Caltrans controls the planning of the state highway system and accessibility to the system. Caltrans establishes LOS goals for highways and works with local and regional agencies to assess impacts and develop funding sources for improvements to the State Highway system. Caltrans requires encroachment permits from agencies or new development before any construction work may be undertaken within the state's right-of-way. For projects that would impact traffic flow and levels of services on state highways, Caltrans would recommend measures to mitigate the traffic impacts.

While there are no state highways within the Planning Area, access to Downtown is provided by State Route 121 (Silverado Trail) and State Route 29.

Association of Bay Area Governments (ABAG)

ABAG was established to conduct planning and study of regional land use, transportation and economic issues of concern to the Counties and Cities in the San Francisco Bay region. The 101 cities and all nine counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma) within the Bay Area are voluntary members of ABAG. In addition to its transportation planning, study functions and policy recommendations, ABAG develops and maintains a regional travel demand forecasting model used for the planning of regional transportation facilities and the assessment of development proposals.

Napa County Transportation and Planning Agency (NCTPA)

The NCTPA is an independent agency of local officials who serve as the countywide transportation planning agency. The NCTPA operates the VINE, the Napa area's bus system and oversees the planning and funding of paratransit (transportation for special needs and disabled riders), the maintenance and improvement of highways, streets and roads, and bicycle transit.

Napa County Public Works Department

The Napa County Public Works Department is responsible for capital facility planning and maintaining roads, bridges and related facilities within the unincorporated area of the County.

Local Plans and Policies

City of Napa General Plan Transportation Goals and Policies

The three major transportation objectives of the General Plan *Transportation Element* 2007 are to "Develop a transportation infrastructure that provides for an acceptable traffic flow and provides access to all destinations," "Create a city-wide transportation system that allows users to choose from a variety of safe transportation options including an adequate system of streets, transit, pedestrian and bicycle facilities" and "Minimize the negative effects of additional automobile traffic and other transportation." The City's General Plan goals and policies further articulate how transportation planning is approached for the Planning Area.

Goal T-1: To provide for extension and improvement of the City's roadway system to ensure the safe and efficient movement of people and goods.

Goal T-2: To maintain an adequate road system that is attractive and provides for efficient movement of people, goods, and services within the City, and adequate connections to the region and state.

***Policy T-2.1*.** The City shall ensure that traffic levels of service (LOS) will not exceed midrange LOS D at all signalized intersections on arterial and collector streets with the following exceptions, where midrange LOS E will be permitted:

a. Downtown Napa within the area bounded by Soscol Avenue, First Street, California Boulevard and Third Street;

b. Jefferson Street between Third Street and Old Sonoma Road; and

c. Silverado Trail between Soscol Avenue and First Street.

***Policy T-2.2*.** The City shall ensure that all new development and redevelopment will meet adopted service levels (LOS) for transportation facilities unless findings are made that achieving other specific public goals found in this General Plan outweigh this requirement.

***Policy T-2.4*.** When reviewing projects, the City shall monitor stop controlled intersections using LOS and the Highway Capacity Manual criterion as a guideline, applying Caltrans signal warrant evaluation as indicated, and requiring mitigation as necessary.

***Policy T-2.7*.** The City shall restudy the access to and circulation in the Downtown area to determine the optimum solution to vehicle circulation that will coordinate with Downtown improvement projects while providing for the circulation needs of the local citizen as well as the visitor.

Goal T-3: To maintain acceptable traffic flow along Napa's crucial corridors.

Goal T-4: To protect residential neighborhoods from high-volume and high-speed traffic and its effects.

Goal T-5: To develop and maintain an efficient and convenient transit system providing alternatives to the use of the personal automobile to residents, workers, and visitors within the City, with connections to Napa County and the region.

Goal T-6: To develop and maintain a safe, integrated bicycle route network for residents and visitors, connecting key destinations to neighborhoods, neighborhoods to each other, and the City of Napa to the county.

***Policy T-6.2*.** The City shall apply for funding to undertake bicycle network route improvements that include the following components:

a. Connections to employment centers and shopping areas: downtown, corporate park, Transcas, State Hospital.

***Policy T-6.6*.** The City shall consider innovative ways of encouraging bicycle use on a few key through streets that are normally too narrow (in part or in whole) to safely accommodate bicycles.

***Policy T-6.7*.** The City shall incorporate designs to support bicycle operating characteristics in intersections and traffic control systems.

***Policy T-6.8*.** The City shall provide for bicycle storage and access in future development.

***Policy T-6.9*.** The City shall promote bicycle access in the site planning and design of all residential subdivisions over 20 units, and of all commercial or industrial projects over 20,000 square feet.

Goal T-7: To develop and maintain bicycle support facilities in appropriate locations to encourage the use of bicycle travel in Napa.

Goal T-8: To improve bicycle safety in promoting the use of bicycle travel in the City.

Goal T-9: To provide an interconnected pedestrian network providing safe access between residential areas, public uses, shopping, and employment centers, with special attention to a high quality Downtown pedestrian environment with links to neighborhoods.

***Policy T-9.4*.** The City shall connect the city's major planned trails (as identified in Chapter 5, Parks and Recreation), to the proposed regional Ridge and Bay Trails, connecting all of these major pedestrian and bicycle routes to downtown.

***Policy T-9.5*.** The City shall maintain a pedestrian-oriented downtown area, with retail uses oriented to the sidewalk.

Goal T-10: To provide convenient access for residents and businesses to a variety of modes of transportation.

Some of the other chapters in the General Plan include references to the transportation element, which are listed below.

> ***LU-6.6.*** The City shall enhance public access to the downtown, including a stronger link to downtown residential neighborhoods, through improvements to directional signs, roads, transit, and pedestrian and bike trails along streets and the river.
>
> ***PR-6.4.*** The City shall link the Napa River Trail to other trails, parklands and community resources including downtown and river oriented businesses.

Planned Roadway Improvements

Conversion of One-way Street Couplets to Two-way Streets

In addition to future development, the Specific Plan includes the proposed conversion of the following existing one-way streets within Downtown to two-way travel:

- First Street – Main Street to Jefferson Street
- Second Street – Main Street to Jefferson Street
- Third Street – Randolph Street to Church Street
- Fourth Street – Coombs Street to Church Street

Over the years, multiple options have been explored for the two-way conversion of several existing one-way streets in Downtown. These streets were originally constructed as two-way streets but were converted to pairs of one-way streets (couplets) in the 1960s as a strategy to increase vehicular capacity. Potential benefits of the conversion back to two-way streets include creation of a less confusing circulation pattern, provision of more direct routes to Downtown destinations and increased exposure to adjacent businesses for passing motorists. Conversion to two-way travel is proposed for the First and Second Streets, and Third and Fourth Streets one-way couplets. The Specific Plan includes conversion of First and Second streets to two-way up to Jefferson Street within the Planning Area.

For the purposes of this analysis, it was assumed that currently signalized intersections would remain signalized and currently unsignalized intersections would remain unsignalized with conversion of the one-way streets to two-way traffic. It is assumed that no major roadway improvements, such as roadway or intersection widening, would be needed with the exception of the intersection of Jefferson Street and First Street, where a southbound left turn lane would need to be constructed into the existing raised median.

Any future implementation of the two-way street conversion will require a detailed engineering and traffic operations assessment, including but not limited to, an evaluation of the needed improvements to intersection geometry, striping, signage and traffic control at the existing signalized and unsignalized intersections along the streets recommended for two-way conversion. As part of the two-way conversion implementation plan, the intersections affected by the two-way conversion should be monitored and evaluated based on the warrants for signal removal

as provided in the Manual of Uniform Traffic Control Devices (MUTCD). The two-way conversions should be coordinated with any utility upgrades, streetscape improvements or any other infrastructure improvements that are planned by the City along the proposed corridors.

Coombs Street Plaza Conversion to One-Way Street

The Coombs Street Plaza was created with the development of the Napa Town Center shopping center. Coombs Street was narrowed and closed to vehicular travel to provide a pedestrian plaza and entrances to the center's retail anchors. This closure limits vehicular access to certain times of day, and blocks access to the northern part of Downtown as well as the City's Pearl Street parking structure from First Street. Further, it limits vehicular access to businesses along the southern portion of Coombs Street Plaza. For visitors unfamiliar with the Downtown circulation system, the closure makes it challenging to locate the primary public parking that serves the Napa Town Center, which now requires a circuitous route of back streets to access the Pearl Street Garage. Furthermore, the one-way orientation of First and Second streets can confuse visitors if they miss Franklin Street and the route to the Pearl Street and Clay Street garages.

Re-establishing vehicular travel on Coombs Street between First and Pearl street is recommended to reinstate the streets original connectivity, improve access to the Pearl Street Garage, create a pedestrian way through the Napa Town Center and facilitate emergency vehicle access.

There is currently sufficient City-owned right-of-way to establish a one-way connection. To establish two-way circulation, more public right-of-way would be necessary. Acquisition of right-of-way for a two-way extension could be implemented as part of a major development project consistent with the vision presented in the Specific Plan.

With the proposed re-establishment of vehicular travel through the Coombs Street Plaza, there is an opportunity to improve downtown circulation by forming a north-south couplet with the one-way segments of Coombs and Franklin streets. Franklin Street runs parallel with Coombs Street, and currently includes a narrow northbound street section between First and Clay streets. With the potential opening of Coombs Street to automobile traffic—which would most likely be one-way northbound in the near term for better access to the Pearl Street Garage—it would be logical to complete the north-south couplet by reversing the direction of Franklin Street to one-way southbound between Clay and First streets. Alternatively, the north-south couplet could involve Franklin Street remaining northbound and Coombs Street running southbound. However, this does not improve access to the Pearl Street Garage. Engineering will be completed prior to installation to determine the appropriate direction of the potential couplet. Ultimately, at the time a major development project is proposed in the area, the City should evaluate opening Coombs Street to two-way circulation between First and Pearl streets to achieve optimal automobile, pedestrian and bicycle circulation based on the proposed development's anticipated impact to these modes and functionality of the street section.

Bicycle and Pedestrian Improvements

The Specific Plan includes recommendations for enhancing the north-south and east-west connectivity of the bicycle network within the vicinity of the Planning Area. The proposed bicycle system was developed through coordination with City staff and public outreach efforts. The following bicycle facilities are proposed in addition to the existing and currently planned/approved bicycle network:

- Class I bicycle/pedestrian bridge over Napa Creek connecting Behrens Street to Seminary Street;
- Class II bike lanes on:
  - First Street from Vernon Street to Silverado Trail;
  - Third Street from California Boulevard to Randolph Street; and
  - Coombs Street from Division Street to First Street;
- Class III bike routes on:
  - Clay Street from California Boulevard to Pearl Street;
  - Pearl Street from Clay Street to Coombs Street;
  - Arroyo Drive from Seminary Street to Brown Street; and
  - McKinstry Street from Water Street to Soscol Avenue.

The Specific Plan also includes several pedestrian/bicycle intersection improvements and mid-block crossing improvements within the vicinity of the Planning Area. The Specific Plan bicycle and pedestrian system is shown in **Figure 4.L-7**.

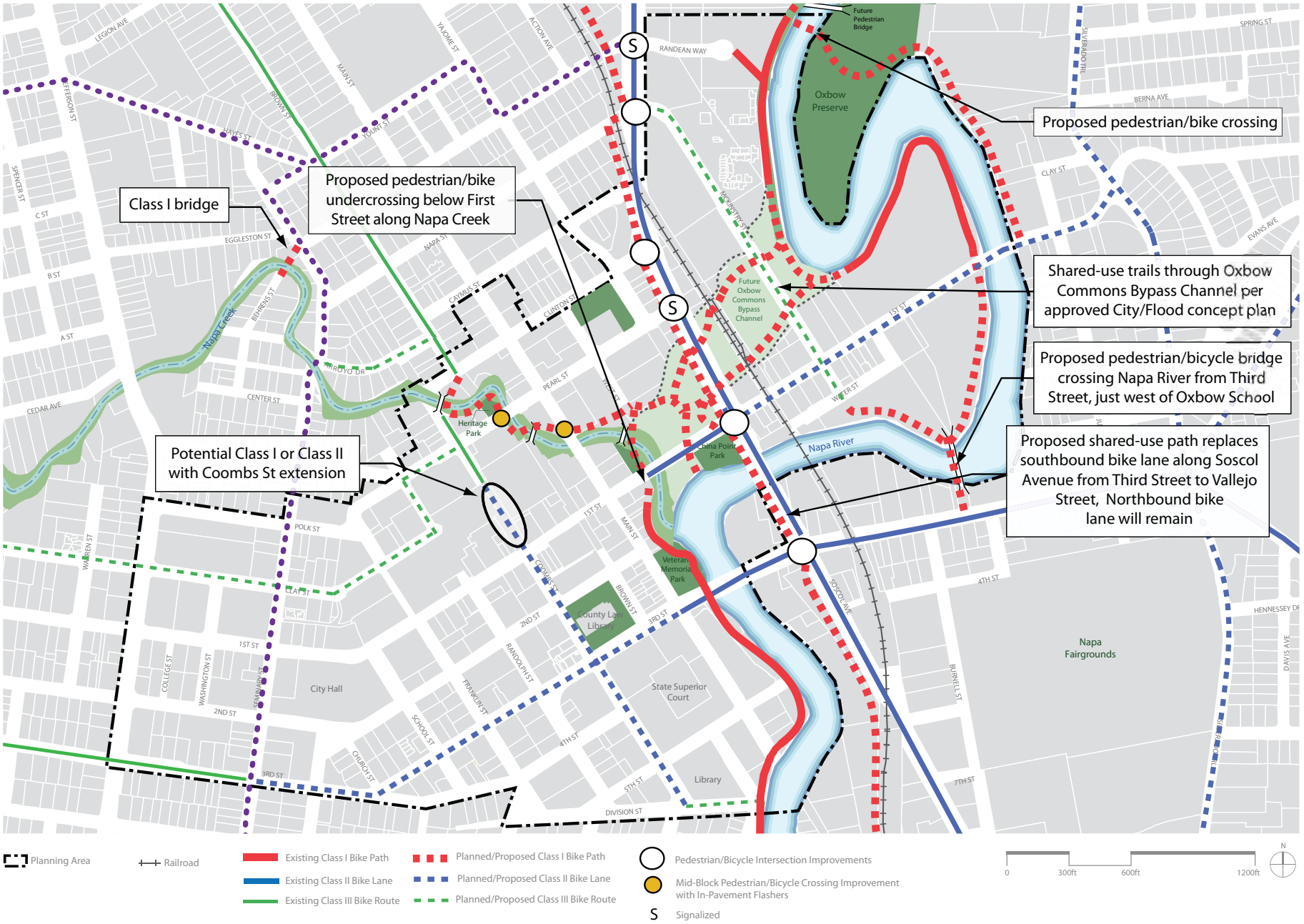
Impacts and Mitigation Measures

Approach to Analysis

The transportation analysis was conducted in compliance with the City of Napa guidelines for typical weekday a.m. and p.m. peak commute hour conditions at local intersections. Current conditions with and without the Specific Plan were used to judge direct project impacts. Cumulative traffic operating conditions, and the Plan's contribution to those cumulative conditions, were analyzed on the basis of forecasts of 2030 conditions.

Significance Criteria

The General Plan and General Plan Environmental Impact Report establish criteria for the determination of significant environmental impacts. The criteria relate to the City's policies regarding traffic circulation, bicycle and pedestrian circulation, and transit service. According to the General Plan, traffic service criteria are quantifiable, but the pedestrian, bicycle and transit service criteria are qualitative and are intended to provide a basis against which to evaluate the City's policies relating to these modes of travel.



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-7

Proposed Specific Plan Bicycle and Pedestrian System

Intersection Level of Service Criteria

According to the City of Napa Traffic Impact Analysis Guidelines, the City Public Works Department uses the following guidelines as a starting point for identifying significant impacts and the appropriate mitigation measures:

1. When a signalized intersection operates at midrange LOS D (as allowed by the General Plan in most locations) or better under existing or interim baseline conditions, the addition of project trips degrades the intersection operations to LOS E or LOS F. The project mitigation should bring the facility to operate at midrange LOS D, at a minimum.

2. When a signalized intersection operates at midrange LOS E (as allowed by the General Plan in some locations and for state highway facilities) or better under existing or interim baseline conditions, the addition of project trips degrades the intersection operations to LOS F. The project mitigation should bring the facility to operate at midrange LOS E, at a minimum.

3. When a signalized intersection operates at LOS F (a violation of the General Plan LOS policy) under existing or interim baseline conditions, the addition of more than 50 peak-hour project trips contributes to the continuing operational failure at the intersection. The project mitigation should bring the facility to pre-project conditions.

4. At an unsignalized intersection when the minor stop-controlled approach operates at LOS E or better or has acceptable operation in terms of total control delay, the addition of project trips increases the total control delay to more than 4.0 vehicle-hours for a single lane approach or 5.0 vehicle-hours for a multilane approach. The project mitigation should bring the facility to operate at LOS E or to bring the total control delay to less than 4.0 vehicle-hours for a single lane approach or 5.0 vehicle-hours for a multilane approach, at a minimum.

5. At an unsignalized intersection when the minor stop-controlled approach operates at LOS F and does not have acceptable operation in terms of total control delay the addition of more than 50 peak-hour project trips contributes to the continuing operational failure at the minor approach. The project mitigation should bring the facility to pre-project conditions.

6. If the proposed project is on a Crucial Corridor and the property is zoned Traffic Impact Overlay (TI), the project generates more than 520 trips/gross acre/day (or gross floor area equivalent). Uses with higher trip generation characteristics are prohibited unless:

    i. Adjustments in the gross floor area, gross acreage, operation, etc., are made to reduce the number of trips to an acceptable level as determined by the Public Works Director, or

    ii. The Public Works Director finds that the transportation benefits of the project clearly outweigh the adverse effect on the crucial corridor. Transportation benefits of the project may include roadway and safety improvements, traffic system management strategies, transit service enhancements, travel demand management strategies, among others.

When operational failures occur under existing conditions, the project shall pay its fair share of the improvements necessary to bring the intersection in compliance with the General Plan LOS policies.

Pedestrian, Bicycle and Transit Criteria

Pedestrian impacts are considered significant if the project disrupts existing, or interferes with planned pedestrian facilities, creates a high demand for pedestrians at locations that lack pedestrian facilities, or creates inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards.

Bicycle impacts are considered significant if the project disrupts existing, or interferes with planned bicycle facilities, or creates inconsistencies with adopted bicycle system plans, guidelines, policies, or standards.

Transit impacts are considered significant if the project disrupts existing, or interferes with planned transit services or facilities, creates demand for public transit services above that which is provided or planned, or creates inconsistencies with adopted transit system plans, guidelines, policies, or standards.

Project Trip Generation

The Institute of Transportation Engineer's (ITE) *Trip Generation*, 8th Edition, was used to estimate daily and peak-hour trip generation that can be attributed development facilitated by the Specific Plan. Trip generation rates are the number of trips generated by a particular land use per an independent variable of dwelling units, employees or square feet. These rates are developed through many studies conducted throughout the country and, therefore, the rates represent a national average for similar land use types. Trip generation rates can vary depending on where the studies were conducted, and ITE provides a range of rates.

Because development in the Planning Area is comprised of the redevelopment of existing land uses, estimates of the "net new external" vehicle trips generated by potential development equals the total trip generation of new development minus the trip generation of redeveloped existing uses. Trip estimates were reduced to account for mixed-use internal capture.[1] This reduction may be used to reflect the fact that some trips are made between different land uses when a development, or adjacent developments, contain a mix of land use types. The trips are expected to remain internal to Downtown and frequently do not require the use of an automobile. In addition, the vehicular trip estimates were further reduced to account for transit usage, walking and cycling.

The Specific Plan land use projections identify the amount of future residential, retail and office development anticipated within the Planning Area. Because there would be restaurant uses as part of the proposed commercial development within Downtown, a portion of the proposed retail development was classified as fine dining or casual dining restaurant use. For the purposes of this analysis, roughly 15 percent of the existing to-be-redeveloped and proposed commercial retail development is assumed to be restaurant (approximately 60 percent fine dining and 40 percent casual dining) for blocks that include at least 15,000 square feet of total commercial retail

[1] Based on ITE's 'Multi-Use Internalization Methodology' published in the *Trip Generation Handbook*, 2nd Edition.

development. Parcels near First Street within Downtown were identified as the most likely locations for future restaurant uses.

Table 4.L-3 summarizes the ITE trip generation for the buildout of the Planning Area. A detailed trip generation summary is included in **Appendix E**.

Project Trip Distribution

The project trip distribution was based on existing traffic counts, traffic volumes in the Napa TMP Travel Demand Model, location of municipal parking lots and garages, and the general orientation of population and employment sources to the Planning Area. Using the distribution percentages shown in **Figure 4.L-8**, the trip generation for each block is assigned to the adjacent roadway network.

Impact 4.L-1: Traffic generated by development facilitated by the Specific Plan could potentially affect levels of service at the study intersections under Existing plus Project conditions. (Significant and Unavoidable)

Existing Plus Project Conditions Impact Analysis

The Existing plus Project scenario was developed by adding the net new trips generated by the buildout of the Specific Plan land use projections to existing traffic volumes based on the trip distribution pattern shown in Figure 4.L-8. Because the Specific Plan includes the conversion of the existing one-way segments of First Street, Second Street, Third Street and Fourth Street to two-way travel, the existing baseline traffic volumes were first adjusted to reflect two-way circulation. It is assumed that the two-way reconfiguration would not require any major modifications to study intersections, such as construction of new medians or expansion of right-of-way for new turn pockets or travel lanes, with the exception of the Jefferson Street / First Street intersection, where a southbound left turn lane would need to be constructed. The intersection lane geometry for conditions with the two-way street conversion improvements is shown in **Figure 4.L-9**. Projected peak hour turning movement volumes for Existing plus Project traffic conditions are shown in **Figure 4.L-10**.

Intersection Operations

Each study area intersection was analyzed based on the volumes shown in Figure 4.L-10 and the intersection geometry and traffic control illustrated in Figure 4.L-9.

As shown in **Table 4.L-4**, all study intersections in the Existing plus Project scenario would continue to operate at acceptable levels of service, except the unsignalized intersection of SR 29 Northbound Off-ramp / First Street (study intersection #14), which would continue to operate at LOS F for the AM and PM peak hours. Although this intersection already operates at LOS F under existing conditions, development under the Specific Plan would add at least 50 peak hour trips to the intersection, which contributes to the continuing operational failure. This is considered a significant impact.

TABLE 4.L-3
PROJECT TRIP GENERATION

Land Use	ITE Code[a]	Size	Units	Daily	AM Peak			PM Peak		
				Total	In	Out	Total	In	Out	Total
Proposed Land Uses										
Residential	220	642	DU	4,269	65	263	328	259	139	398
Retail	820	590.47	KSF	25,355	361	230	591	1,079	1,123	2,202
Restaurant (Fine Dining)	931	52.00	KSF	4,678	34	8	42	261	129	390
Restaurant (Casual Dining)	932	33.00	KSF	4,196	198	182	380	218	150	368
Office	710	601.94	KSF	6,627	821	112	933	153	744	897
Hotel[e]	310	303	Rooms	2,476	104	66	170	95	84	179
Internal Capture Reduction[b,d]				-12,465	-252	-252	-504	-459	-459	-918
Transit/Walk/Bike Reduction (7%)[c]				-2,460	-93	-42	-136	-112	-134	-246
Trip Generation Subtotal – Project Trips				**32,685**	**1,238**	**567**	**1,804**	**1,494**	**1,776**	**3,270**
Existing Uses Displaced										
Residential	220	15	DU	100	2	6	8	6	3	9
Retail	820	494.88	KSF	21,250	302	193	495	904	942	1,846
Restaurant (Fine Dining)	931	42.00	KSF	3,778	28	6	34	211	104	315
Restaurant (Casual Dining)	932	30.00	KSF	3,815	180	166	346	198	137	335
Office	710	131.34	KSF	1,446	178	25	203	33	163	196
Hotel[e]	310	0	Rooms	0	0	0	0	0	0	0
Internal Capture Reduction[b,d]				-5,696	-134	-134	-268	-190	-190	-380
Transit/Walk/Bike Reduction (7%)[c]				-1,729	-38	-19	-57	-81	-81	-163
Trip Generation Subtotal – Existing Displaced				**22,964**	**518**	**243**	**761**	**1,081**	**1,078**	**2,158**
Total Net New Trips (Proposed – Existing Displaced)				**9,721**	**720**	**324**	**1,043**	**413**	**698**	**1,112**

[a] Trip generation estimates calculated based on ITE's Trip Generation, 8th Edition.
[b] Calculations for internal capture are based on ITE Trip Generation Handbook, 2nd Edition. For the purposes of this exercise, the areas west of Soscol Ave and east of Soscol Ave were treated as two separate subareas based on the natural barrier effect of Soscol Avenue.
[c] Source of Transit/Walk/Bike Mode Split Data for Downtown Napa: 2000 MTC Bay Area Travel Survey (BATS).
[d] For the purposes of this exercise, no pass-by reductions were assumed for the trip generation estimate.
[e] For the proposed Hotel on Block F/ Copia Site, the approximate s.f. is estimated at 252,569; however, the total number of rooms were needed to estimate trip generation. The number of rooms was estimated assuming 60% of building area is used for guest rooms at 500 s.f./room. (252,569 s.f. x 60% guest rooms / 500 s.f. per room = 303 rooms)

SOURCE: Kimely-Horne Associates (2011)

SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-8

Project Trip Distribution