

CHAPTER

5



ENVIRONMENTAL ANALYSIS

CHAPTER 5: ENVIRONMENTAL ANALYSIS

5.1 INTRODUCTION

5.1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

This Old Sacramento State Historic Park (OSSHP) and California State Railroad Museum (CSRM) General Plan, with all its sections, constitutes an environmental impact report (EIR), as required by California Public Resources Code (PRC) Sections 5002.2 and 21000 et seq. The General Plan is subject to approval and the EIR is subject to certification by the California States Parks and Recreation Commission (Commission). The Commission has sole authority for approval and adoption of the plan. After certification of the EIR and approval of the General Plan by the Commission, State Parks will prepare management plans and area development plans as staff and funding become available. Future projects that are within OSSHP or CSRM may be subject to permitting requirements and approval by other agencies, such as the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), Central Valley Flood Protection Board (CVFPB), California Department of Fish and Game (DFG), or others, as applicable.

5.1.2 FOCUS OF THE ENVIRONMENTAL IMPACT REPORT

The notice of preparation (NOP) for this EIR was circulated to the appropriate federal, state, and local agencies. Comments received during scoping and throughout the planning process were considered during preparation of this General Plan and EIR. The EIR was prepared to address environmental impacts that may result from implementing the General Plan and its management goals and guidelines. Emphasis is placed on significant environmental impacts that may result from future development enabled by the General Plan and from operation of OSSHP and CSRM consistent with the goals and guidelines.

5.1.3 SUBSEQUENT ENVIRONMENTAL REVIEW PROCESS

This document serves as a first-tier EIR as defined in Section 15166 of the California Environmental Quality Act Guidelines (State CEQA Guidelines). Additional individual or site-specific projects and appropriate CEQA compliance will follow the General Plan and EIR. For those resource topics for which sufficient information was available to analyze potential impacts at the project level, future compliance may consist of implementation of the specific guidelines, mitigation measures, or permitting requirements identified in this General Plan and EIR.

5.1.4 CONTENTS OF THE ENVIRONMENTAL IMPACT REPORT

The EIR includes the following sections:

Section 5.1, “Introduction”: This section includes a brief overview of the environmental review process, summarizes the focus and content of the EIR, and discusses the approach to the environmental analysis.

Section 5.2, “Summary of the Environmental Impact Report”: This section presents a summary of environmental impacts associated with the proposed General Plan, and an overview of the impacts of alternatives to the preferred General Plan that were considered in the analysis.

Section 5.3, “Project Description”: This section provides an overview of the proposed General Plan, which is the focus of the program EIR, including a description of General Plan elements.

Section 5.4, “Environmental Setting”: This section notes that the existing (baseline) conditions for environmental issues or resources that could be affected by implementation of the General Plan are addressed in Chapter 2, “Existing Conditions,” which represents the environmental setting for this EIR. For some resource topics, additional environmental setting information is provided in this section, as needed to support the impact analysis.

Section 5.5, “Environmental Effects Eliminated from Further Analysis”: This section describes those environmental topics that did not warrant detailed environmental analysis and the supporting rationale for their elimination.

Section 5.6, “Environmental Impacts and Mitigation Measures”: This section provides an analysis of the potential environmental impacts associated with implementing the proposed General Plan. Feasible mitigation measures are provided, where necessary and available, to reduce these impacts to a less-than-significant level. Significant and unavoidable impacts are also identified in this section.

Section 5.7, “Other CEQA Considerations”: This section contains information on other topics for which CEQA mandates an analysis: significant and unavoidable impacts, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts.

Section 5.8, “Alternatives to the Proposed Project”: The section describes the various alternatives to the proposed General Plan (including the No-Project Alternative) that are considered in this EIR and provides an analysis of the associated environmental effects of these alternatives relative to the proposed project. It also identifies the environmentally superior alternative, in accordance with the State CEQA Guidelines.

5.2 SUMMARY OF THE ENVIRONMENTAL IMPACT REPORT

5.2.1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

The OSSHP and CSRМ General Plan reflects State Parks' dual mandates as a steward of natural and cultural resources and the provider of recreation opportunities. Chapter 4, "The Plan," identifies goals and guidelines for management of physical and natural resources, management of cultural resources, visitor use and opportunities, interpretation and education, and park operations. The goals and guidelines contained in this General Plan (Chapter 4) seek to avoid and minimize potentially significant adverse impacts on the environment to the greatest extent possible.

An evaluation of the potential for significant adverse environmental impacts on aesthetic resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, public services, transportation and traffic, and utility and service systems is provided in Section 5.6, "Environmental Impacts and Mitigation Measures." Significant environmental impacts were identified for the topic of noise; while mitigation measures are available that would reduce some of the noise impacts identified to less-than-significant, two significant and unavoidable impacts related to noise (long term noise related to rail operations and noise related to land use) were identified. For the remainder of the topics, the specific guidelines noted in the impact analysis section for each environmental topic would avoid environmental impacts or maintain them at less-than-significant levels.

The environmental analysis prepared for the General Plan is programmatic in scope as explained above in Section 5.1.3, "Subsequent Environmental Review Process." The General Plan includes guidelines that will help govern environmental review of future projects at the project level, where appropriate.

5.2.2 SUMMARY OF ALTERNATIVES CONSIDERED

This EIR analyzes potential impacts of the General Plan (proposed project), the No-Project Alternative, and two additional alternatives that present different development scenarios for OSSHP and CSRМ. The two different development scenarios were chosen to represent the spectrum of alternatives developed during the planning process, and for their potential to avoid or reduce significant environmental effects. The alternatives analysis is found in Section 5.8, "Alternatives to the Proposed Project."

AREAS OF KNOWN CONTROVERSY

The following areas of known controversy were identified for the proposed project:

- Public access to historic buildings;

- The ability to maintain the historic integrity of buildings and grounds while upgrading infrastructure and utilities and providing for public access and public safety;
- Underutilized and undefined open space in the Gold Rush and Commerce Block;
- Lack of focus on the river’s edge at Riverfront Park even though the park provides one of Old Sacramento’s best views of the river and exemplifies the early historic grade in Old Sacramento before the city was raised over time;
- Effects of excursion train operations on residential areas located near the railroad right-of-way;
- Effects of excursion train operations on wildlife at Stone Lakes National Wildlife Refuge;
- Bicycle safety on the Sacramento River Bike Trail adjacent to the excursion train route.

ISSUES TO BE RESOLVED

The following issues affecting OSSHP remain to be resolved:

- Lack of cohesive vision for visitor facilities in OSSHP complementary with the rest of the Old Sacramento Historic District;
- Public safety, visitor accessibility, and specific improvements to the boardwalks, street surfaces, and bike trails;
- Circulation, access, and parking.

5.3 PROJECT DESCRIPTION

5.3.1 OVERVIEW

OSSHP consists of approximately 14 acres of State Parks lands in Old Sacramento and more than 16 miles of railroad right-of-way. The park includes approximately 855 feet of river frontage along the Sacramento River from J Street to the I Street Bridge. Except for a portion of the Sacramento riverfront, OSSHP lands have been developed. Development in OSSHP consists primarily of a cluster of commercial buildings on the oldest lots in Old Sacramento, and streets and pedestrian pathways-all representing the city’s historic commercial district.

The railroad right-of-way runs south from Old Sacramento for more than 16 miles. The right-of-way runs atop the Sacramento River levee for approximately 2.5 miles, then crosses over Interstate 5 (I-5) and traverses urban areas in Sacramento before entering rural areas south of the city. From the community of Freeport, the ROW extends south on a secondary levee and crosses the Cavanaugh golf course, Beach Lake complex, Stone Lakes National Wildlife Refuge, and orchards and agricultural lands near Hood.

Chapter 4 of this document constitutes the “project description” of the General Plan and presents the overall long-range purpose and vision for the OSSHP and CSRM. The management

goals and supporting guidelines listed in Chapter 4 are designed to address the critical planning issues identified during the planning process and to mitigate any adverse environmental impacts of development, management, and uses that would be permitted at OSSHP and CSRM.

OSSHP and CSRM are defined by land use areas with distinct characteristics, goals, and opportunities. Land use areas identified for OSSHP include the Sacramento Riverfront area and Gold Rush and Commerce area. Land use areas identified for the CSRM are the Railroad History and Technology area and the Sacramento Southern Railroad area. Land use areas for OSSHP are defined by their features, distinct resources, interpretive purposes and character, desired visitor experiences and uses, and operation and management needs. Exhibit 4-1, "Land Use Concept for OSSHP and CSRM," in Chapter 4 shows the approximate location and extent of each land use area. Brief description of the land use areas for OSSHP and CSRM, and their respective purpose, cultural and natural resource values, desired visitor experience and uses, access, and facilities are included in Table 4-1, "OSSHP Land Use Areas" and Table 4-2, "CSRM Land Use Areas."

5.3.2 PROPOSED LAND USE AND FACILITIES

OSSHP and CSRM are located in the Downtown Sacramento Central Business District in the City and County of Sacramento. Uses and facilities in OSSHP are located on the north side of Old Sacramento. Uses and facilities in CSRM straddle two historic districts, Old Sacramento and the Central Shops Historic District on the former Southern Pacific/Central Pacific Railroad yards (Railyards) site (Exhibit 4-1). Exhibit 4-2, "Preferred Concept Plan," shows the land uses and facilities proposed for implementation in OSSHP and CSRM over a time frame of approximately 20 years. Proposed facilities within OSSHP and CSRM, as shown in Exhibit 4-2, are described below.

OLD SACRAMENTO STATE HISTORIC PARK

GOLD RUSH AND COMMERCE AREA

The Gold Rush and Commerce area encompasses the earliest lots in Sacramento, interpreting the city's early Gold Rush-era history; the raising of the city's streets; early commercial development, consistent with the time period of structures represented in Old Sacramento, dating between 1848 and the 1870s; and early communication and transportation technology via stage lines and horse drawn vehicles, the Pony Express, and telegraph. The Gold Rush and Commerce area for OSSHP includes the existing B. F. Hastings Building and Pony Express plaza at 2nd and J streets; the Gold Rush and Commerce block on Front Street; and the structures surrounding it, which include the Big Four Building and Dingley Steam Coffee and Spice Mill (Dingley Spice Mill) on I Street. OSSHP will also continue to celebrate historic methods of transportation in use in the Sacramento region during the Gold Rush, including the operation of a horse car loop through Old Sacramento. Some of the main facilities in the Gold Rush and Commerce Area are described below.

- The **1849 Scene/Gold Rush and Commerce Block** is currently a large open grass knoll that includes several reconstructed Gold Rush–era commercial buildings. The General Plan proposes to recreate the 1849 Scene as a restored historic commercial block called the Gold Rush and Commerce Block, with buildings facing Front, I and J Streets. The block would include at least three levels: an underground level with guided and self-guided archaeological tours of the original street level; commercial street frontage on the current ground-floor level; and commercial, office, and hotel functions on the floor(s) above.
- The **Big Four Complex** consists of the **Big Four Building** and **Dingley Spice Mill**. The **Big Four Building**, which fronts onto I Street and is located near the California State Railroad Museum (CSRM), houses the Huntington, Hopkins & Company Hardware Store and the Stanford Hall. The Dingley Spice Mill, adjacent to the Big Four Building, is the original Nathaniel Dingley Steam Coffee and Spice Mill, built in 1859 after the previous building burned in December of 1858. Proposed improvements to the Big Four Building Complex envision the use of the Stanford Hall as an exhibit space for interpreting the Gold Rush story and significance of the Big Four Building in connection with the Gold Rush and Commerce Block and the development of an interpretive coffee shop concession at the Dingley Spice Mill.
- The **B. F. Hastings Building**, at the corner of 2nd and J Streets, has housed many occupants, including its namesake, Hastings and Company Bank in 1853 and Wells Fargo and Company from 1854 through 1857. The Alta Telegraph Company and its successor, the California State Telegraph Company, also were building occupants at one time. Furthermore, the building was the western terminus of the Pony Express.

The Wells Fargo History Museum now occupies part of the first floor. The California Supreme Court occupied the second floor of the building from 1855 through 1857 and again from 1859 through 1869, when the State Capitol building was being completed. The second floor currently is being renovated and is closed to the public; it will reopen as a museum for public access once renovation is complete.

- The route of the Pony Express Trail is celebrated at the **Pony Express Plaza** at the corner of 2nd and I Streets. From 1860 through 1861, the **Pony Express Trail** passed through Old Sacramento and terminated at the B. F. Hastings Building. Mail conveyed by the Pony Express then was loaded onto boats, bound downriver for San Francisco. This small plaza features a grassy area, seating, and shade trees, and is home to the Pony Express Statue, sculpted by Thomas Holland.

The General Plan proposes the park retain its existing use but be enhanced with more seating areas, picnic tables, and drinking fountains. Furthermore, interpretation of the Pony Express Trail would be enhanced by identifying its route along I Street to the Sacramento River waterfront, using signage and interpretive materials.

- **Horse-drawn services** were a popular form of public transit common during the mid- to late-19th century. Although a privately operated horse-drawn carriage service is available in greater Old Sacramento, a new horse car service would follow a loop along 2nd Street, I Street, Front Street, and L Street. The horse cars would run in the middle of the streets, in a designated, embedded track.

SACRAMENTO RIVERFRONT AREA

The Sacramento Riverfront area, located between the I Street Bridge to the north and the Tower Bridge to the south, includes docks and open space that provide access to and views of the Sacramento River. Property within the area is under City of Sacramento (City), State Parks, and private ownership.

The vision for the riverfront area includes consistent design and programming that would allow the visitor to travel along an interpretive route, providing a view into the city's historic relationship with the river. The route would guide visitors toward several local attractions, providing an interconnected experience with destinations including the Crocker Art Museum, the Railyards, and Discovery Park in Sacramento, and Raley Field and the California Indian Heritage Center in West Sacramento.

Physical improvements would include visitor amenities that would improve the appearance and comfort of the riverfront, such as additional seating, signage, and shade trees. Pedestrian and bicycle circulation improvements would be installed at several junctures along the riverfront, to ensure safe crossings of the railroad tracks and enhance accessibility. The primary interpretive features in the riverfront area and the proposed improvements within OSSHP are discussed below.

- A proposed **new dock**, extending from J Street to approximately the I Street Bridge, would substantially expand boat moorage along the Sacramento River. The dock would expand the availability of water transportation to connect destinations on both sides of the Sacramento River. The boat dock would be intended for use primarily by water taxis and other public-access boats, as well as historic ships that may be on display. Moorage by private recreational vessels would be restricted to identified locations on the dock. The dock would also allow OSSHP to expand its interpretive mission by providing visitors with an additional opportunity to experience the river's natural and cultural history. Remains of a historic embarcadero, located at approximately the same site during the mid-19th century, would be another example of the layered history in Old Sacramento.
- The remains of **sunken ships** are located at the foot of I and J Streets along the riverfront area. These ships were used as floating docks, hotels, for warehouses, and even as a jail. One of these ships was the *LaGrange*, a three-masted bark that arrived in Sacramento in October 1849 and served as a prison until it sunk during a storm in 1859. Remains of the *LaGrange*, near the foot of I Street include hull planks, floor frames, some copper sheathing, curved timbers, and a keelson. Some timbers are visible just above the waterline during low flow periods of the Sacramento River. Near the foot of J

Street is the wreck of the brig *Sterling* which served as a floating warehouse and sank while moored at the foot of I Street in 1854.

Interpretive exhibits would highlight these and other sunken Gold Rush-era ships, including their many uses during the early days of Sacramento's embarcadero.

- The **display of historic ships** would be accommodated on a temporary or permanent basis at the proposed OSSHP dock. Emphasis would be placed on seeking ships that would recreate historic Sacramento River commerce and transport. However, ships of general historic interest also would be encouraged, such as sailing ships including the brig *Lady Washington* and the ketch *Hawaiian Chieftain*.
- **Riverfront Park** would provide better access to and along the river, afford enhanced views, and make the waterfront an integral part of OSSHP. The park also would be restored with native habitat, enhancing its natural setting along the river.

The Sacramento River Bike Trail would be extended through Riverfront Park to J Street, providing additional bike and pedestrian access. To improve bicycle and pedestrian safety, I Street would be abandoned as a physical crossing, and trail traffic would be rerouted to J Street. Clearly marked pedestrian crossings would be installed over the excursion train tracks and boardwalk, to improve safety and assist mobility-impaired individuals in reaching the waterfront.

To improve the visual aesthetics of the area, the walls and fencing would be replaced where possible with a consistent barrier (such as bollards) that would provide safety while allowing unobstructed views of the Sacramento River. Remnants of former structures without historic significance would be removed, while those of historic interest would be interpreted.

- **Waterfront Park** is a linear park along Front Street, between Neasham Circle and K Street. The park is owned and maintained by the City. The park includes the Old Sacramento Schoolhouse Museum (a representation of a traditional one-room schoolhouse), the California Steam Navigation Co., restrooms, and some seating. These uses would continue.

To better accommodate special events, the open space in this park may include additional seating and shade trees or structures. The California Steam Navigation Company could be repurposed as a Sacramento River Delta Museum, consistent with the goals for interpreting the riverfront area.

CALIFORNIA STATE RAILROAD MUSEUM

RAILROAD HISTORY AND TECHNOLOGY AREA

CSRSM facilities tell the story of the railroad, its history, innovation, role in transforming the region, and connecting the Pacific Coast with the Atlantic Coast. The CSRSM includes artifacts,

interpretive collections, and railroad equipment and facilities including the Freight Depot, Passenger Station, the RHM, the proposed RTM and associated support facilities (the Boiler Shop, Erecting Shop, and turntable) on the Railyards property, a vintage excursion train, and more than 16 miles of train tracks (mostly owned by State Parks) and associated stops or stations, from Old Sacramento, south to the town of Hood. With additions and enhancements proposed under the General Plan, the CSRM would include the premier railroad museums in the state.

- The **Railroad History Complex** receives more than half a million visitors per year and includes the existing Railroad History Museum; the Central Pacific Railroad Passenger Station (Passenger Station); the Central Pacific Railroad Freight Depot (Freight Depot); and a turntable on Front Street.
- The RHM is located near 2nd and I Streets. The RHM houses displays that include restored railcars and engines that can be viewed and, in some cases, boarded by visitors (such as the dining car that features railroad china).
- The façade of the RHM would be redesigned to present a more historically accurate appearance. In addition, a catering kitchen would be added to the rear of the building (the north side), to serve special events. A school and tour group entrance would be added to the east side of the building (2nd Street) to facilitate entry to the building. A visitor information center also would be added along the 2nd Street side of the building.
- The **Central Pacific Railroad Passenger Station** (Passenger Station), located on Front Streets near its intersection with J Street, is a reconstruction of the station's 1876 appearance as the terminus of the first transcontinental railroad. The existing building represents the development of station construction and improvements that began in 1868 and included the addition of a refreshment stand for concessions in 1873.

Improvements to the station would include an expanded boarding platform for the excursion train line and opening a restaurant concession, similar to the Silver Palace Restaurant that once operated on the site.

- The **Central Pacific Railroad Freight Depot**, located on Front Street between J Street and K Street, is a reconstruction of the original wood frame building, constructed in the mid-1860s. The building served as the principal freight depot for goods carried by rail, river boat, and wagon until 1880. The Freight Depot includes interpretive exhibits and serves as the boarding area for the excursion train line. A portion of the existing depot includes the Old Sacramento Public Market, although contracts with its vendors are slated to end soon.

The Freight Depot would be enhanced by a historically accurate reconstruction, removing the public market additions. Passenger ticketing and boarding for the excursion train line would be moved to the Passenger Station. Additional interpretive exhibits describing the natural history of the Sacramento–San Joaquin Delta (Delta) would be added.

- The proposed **Railroad Technology Complex** would include a new Railroad Technology Museum facility utilizing existing buildings located in the Railyards north of OSSHP to serve as an expansion of the RHM. The Railroad Technology Museum would occupy the former Southern Pacific Railroad Boiler Shop and Erecting Shop, in a combined area of approximately 152,000 square feet. Both buildings have been subject to clean-up of contamination and are being rehabilitated under the *Secretary of the Interior's Standards for Rehabilitation of Historic Buildings*.

The Boiler Shop (and three associated parcels that include the railroad's firing line, turntable, and transfer table) would be rehabilitated to enable the public to watch artisans restore historic railcars, locomotives, and equipment. The Erecting Shop would be restored to house the formal Railroad Technology Museum, galleries with displays interpreting railroad science and engineering.

SACRAMENTO SOUTHERN RAILROAD

The current excursion train line, operated in Old Sacramento, runs on the historic right-of-way of the Sacramento Southern Railroad. This train line is owned and operated by State Parks; excursion trains operate on weekends from April through September, with special train operations between October and December. Tickets may only be purchased at the Freight Depot, where passengers board. The trains make a 6-mile round trip along the levee.

State Parks proposes an expansion of the excursion train line to include two routes.

- **Train Line #1** would utilize the existing route, beginning at Old Sacramento, but would be extended to the Sacramento Zoo, with proposed stops at the Crocker Art Museum, Miller Park, and the site of the former Riverside Baths near Land Park (the current turnaround location).. Round trips to the zoo would be offered, originating in Old Sacramento only.
- **Train Line #2** would run between a new station in the Pocket/Meadowview area and the town of Hood on the Sacramento River. Train Line #2 would host wildlife viewing trains and themed excursions, with food service including brunch or dinner. Train Line #2 would be timed to offer a riverboat interface, with potential service at Freeport and Hood.

Much of the right-of-way needed for these two proposed excursion lines is already owned by State Parks. The right-of-way between the Sacramento Zoo and Meadowview is owned by the Sacramento Regional Transit (RT) District. Additional property acquisition of the RT right-of-way would be necessary for the operations, movement of equipment, and maintenance of excursion Train Line #2, from Pocket/Meadowview to Hood.

VISITOR EXPERIENCE

Improvements to the visitor experience would enhance the sense of arrival to the parks through the addition of clearly marked gateways and increased availability of signage and

information to direct the visitor within OSSHP and CSRM. The primary proposed improvements to the visitor experience in OSSHP and CSRM are described below.

- **Visitor gateways or major centers** in Old Sacramento, the Central Shops Historic District, OSSHP, and CSRM, will be clearly identified with a monument sign or kiosk. Monument signs and kiosks identify the park name or place. In addition, visitor kiosks provide information such as maps of the parks, park facilities, and points of interest; printed self-guided tour maps; a calendar and summary of activities and events offered within Old Sacramento and the Central Shops; and references to nearby facilities of interest in the Sacramento area. Gateways are proposed at the following locations:
 - The proposed dock, where visitors using water taxis would enter OSSHP from the Sacramento River
 - The Sacramento River Bike Trail, where it enters OSSHP from the north
 - The Underground Tunnel, at an entry to OSSHP from the north and entry to the CSRM from the south
 - 2nd and I Streets, at an eastern OSSHP entry point
 - Front and K Streets, at a southern OSSHP entry point
 - At Waterfront Park
 - At the proposed boarding area for the excursion train at the restored Passenger Station on Front Street
- Directional or wayfinding signage will also be provided to guide visitors to the key resources and points of interest in both park areas and historic districts.
- Because facilities and special resources in OSSHP and CSRM, such as Pony Express plaza, the B. F. Hastings Building, and the Railroad Technology Complex are dispersed in several locations, identification signs at these locations can be designed to be less elaborate signage, used to identify them as OSSHP and CSRM facilities.

5.4 ENVIRONMENTAL SETTING

Existing conditions that characterize OSSHP and CSRM, including the important resource values within the parks and the larger regional planning context, are described in Chapter 2, “Existing Conditions.” Additional setting information is provided by specific resource topic, where needed, in Section 5.6, “Environmental Impacts and Mitigation Measures.”

5.5 ENVIRONMENTAL EFFECTS ELIMINATED FROM FURTHER ANALYSIS

The following topics were eliminated from further analysis in the EIR because no potential exists for significant environmental effects on these resources, resulting from implementation of the General Plan. A brief rationale for their elimination is provided for each respective topic.

5.5.1 AGRICULTURAL AND FORESTRY RESOURCES

OSSHP and CSRМ are located on land in the City of Sacramento that is occupied by existing urban development. The site does not support agricultural production or forestry resources. Therefore, these topics are not addressed further in this document.

5.5.2 MINERAL RESOURCES

Implementing the General Plan would not result in the loss of availability of known mineral resources that are or would be of value to the region and residents of the state. General Plan implementation also would not result in the loss of a locally important site for recovering mineral resources as delineated on a local general plan, specific plan, or other land use plan. No further discussion of these topics is required.

5.5.3 PALEONTOLOGICAL RESOURCES

No known paleontological resources have been documented on the site. The alluvial materials that underlie the site are Holocene deposits (i.e., less than 11,000 years old) (CDMG 1999). These deposits are of recent geologic age and would not be expected to contain fossilized organisms. Therefore, no impact on paleontological resources would occur as a result of implementation of the General Plan. No further discussion of this topic is required.

5.5.4 POPULATION AND HOUSING

Implementing the General Plan would not involve development of new housing, nor would it displace existing housing or populations. All new construction would consist of historic buildings reconstructed for use in interpretive programs in OSSHP. Some structures would be reused and rehabilitated in CSRМ on the Railyards sites. Others would consist of boarding platforms for the excursion train, to be located at intermediate stops between Old Sacramento and the Sacramento Zoo for Train Line #1, and at the new station in the Pocket/Meadowview area, with a possible intermediate stop between that station and the town of Hood, for Train Line #2. No further discussion of this topic is required.

5.5.5 RECREATION

Implementation of the General Plan would increase recreational opportunities in Sacramento and the surrounding region. The General Plan would not cause an increase in population that would increase demand for recreational facilities. The General Plan would involve expanding and improving existing state park facilities, the physical effects of which are addressed in this chapter under the relevant resource topics. Therefore, further discussion of this topic is not required.

5.6 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The following sections analyze potential impacts by resource topic. The criteria used to determine the significance of impacts in the following resource discussions were derived from Appendix G (environmental checklist) of the State CEQA Guidelines.

The General Plan has been developed to guide development and management of OSSHP and CSRM in a way that is most appropriate to fulfill the park vision and State Parks mission (Section 1.8.1, “Planning Hierarchy”). With application of the General Plan’s goals and guidelines, the plan would be largely self-mitigating.

5.6.1 AESTHETIC RESOURCES

INTRODUCTION

This section analyzes impacts related to aesthetic resources that would result from implementing the General Plan. Aesthetic resources include scenic characteristics within viewsheds and viewsapes that add to the visual resources of an area. The existing visual character of an area is determined by the attributes of site-specific features (such as color, form, and texture) and by the patterns of those features as a result of natural processes and human influences. The visual character is also influenced by adjacent views outside of the site and atmospheric effects.

ENVIRONMENTAL SETTING

Refer to Section 2.3.4, “Aesthetic Resources,” in Chapter 2 of this General Plan for a description of existing conditions related to aesthetic resources.

REGULATORY SETTING

No federal, state, regional, or local plans, regulations, or laws related to aesthetic resources apply to the proposed General Plan.

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact on aesthetics if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;
- substantially degrade the existing visual character or quality of the site and its surroundings; or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

OSSHP is not on or near a state scenic highway; therefore, this topic is not addressed further in this EIR.

IMPACT ANALYSIS

Impact Aes-1: Adverse Effects on a Scenic Vista.

The visual quality of OSSHP is moderately high, with scenic vistas of the Sacramento River and River Walk Park across the river in the city of West Sacramento. Scenic vistas from River Walk Park in West Sacramento and from the Tower Bridge include the riverfront in OSSHP and greater Old Sacramento (see Photos 12 and 13 in Section 2.3.4, “Aesthetic Resources”). The visual resources within OSSHP, the CSRМ, and the adjacent Old Sacramento Historic District and Central Shops Historic District combine to provide scenic street views. Views to the west from along I Street provide a striking visual contrast between the reconstructed historic buildings in the foreground and modern high-rise buildings in West Sacramento (Section 2.3.4, Photo 1).

Implementing the General Plan would provide additional points of interest within OSSHP, CSRМ, and along the waterfront, and would improve access to the waterfront, thereby increasing opportunities for the public to enjoy views of the river. Because the General Plan’s interpretive and educational goals and guidelines state that building design and construction would be consistent with existing structures nearby (OSSHP Goal INT-1, CSRМ Goal INT-1, OSSHP Guideline INT-2, and CSRМ Guidelines INT-1 and INT-4), the alteration of views is not considered an adverse effect on any scenic vista.

In the Sacramento Riverfront area, expanding excursion train operations would increase opportunities for the public to view areas along the railroad right-of-way. The proposed excursion Train Line #2 from the Pocket/Meadowview area to the town of Hood would open up opportunities for the public to view scenic vistas and natural areas of Stone Lakes National Wildlife Refuge and adjacent riparian and rural landscapes (Section 2.3.4, Photos 10 and 11).

Expansion of the excursion Train Line #1 to the Sacramento Zoo is proposed by the General Plan; the railroad right-of-way is located on the Sacramento River levee, then crosses over I-5 and is located on an embankment. The embankment is vegetated with Himalayan blackberry and a mix of native and nonnative shrubs and is elevated above the surrounding area. The railroad embankment does not present residents in adjacent areas with scenic vistas and no alterations to the railroad embankment would occur.

Loading-platform structures would be required for the excursion train at planned stops. The locations and appearance of these structures have not been determined; however, Guideline FAC-10 requires that excursion train support structures be designed to fit in with the surrounding area. No substantial changes to scenic vistas would result from extending the excursion train route to the Sacramento Zoo, or as a result of improvements to the railroad right-of-way and operations of the excursion Train Line #2 between the Pocket/Meadowview area and the town of Hood. This impact would be **less than significant**.

Impact Aes-2: Degradation of the Existing Visual Character or Quality of the Site and Its Surroundings.

The General Plan would provide for additional interpretation of points of historic interest within OSSHP and CSRM. Buildings would be designed and constructed to conform to the historic character of the interpretive period for OSSHP, consistent with existing buildings within OSSHP and the adjacent Old Sacramento Historic District (Goal I/E-1 and Guideline I/E-3).

The Gold Rush and Commerce area would include structures representing buildings dating between 1848 and the 1870s; the 1849 Scene would be developed on the grassy area bordered by Front Street, I Street, and J Street (Photo 1, below). The General Plan proposes a restored historic commercial block (to be known as the Gold Rush and Commerce block), with buildings facing Front Street. The block would include at least three levels: an underground level with guided and self-guided archaeological tours of the original street level; commercial street frontage on the ground-floor level; and commercial, office, and hotel functions on the floors above. Because building design and construction would be consistent with existing structures nearby, and would increase the number of points of historic and visual interest in OSSHP, alteration of views is not considered an adverse effect on any scenic vista.



Photo 1: View from I Street of 1849 Scene location (site of proposed Historic Scene)



Photo 2: View of 1849 Scene location from Pioneer Park on J Street

In the Sacramento Riverfront area, proposed physical improvements include visitor amenities that would improve the appearance and comfort of the riverfront, such as additional seating, signage, and shade trees. Pedestrian and bicycle circulation improvements would be installed at several locations along the riverfront to ensure safe crossings of the railroad tracks and enhance accessibility. These improvements would be consistent with and would enhance the visual character of OSSHP.

Extending the existing excursion train route to the Sacramento Zoo would extend rail operations onto the portion of the railroad right-of-way located between I-5 and Sutterville Road. The railroad right-of-way is located on an elevated embankment; area residents would have views of the train as it moves along the tracks on the embankment, which is elevated above the surrounding area. The embankment is vegetated with Himalayan blackberry and a mix of native

and ruderal vegetation. Views of the railroad embankment from adjacent areas are of low quality; the embankment does not provide visually interesting patterns or features, except perhaps the seasonal changes in vegetation. The railroad embankment would not be altered except for vegetation management, which would result in minor alterations to the visual character of the area. Vegetation management is currently ongoing and vegetation management during implementation of the General Plan would be similar to current management.

In the Sacramento Southern Railroad area, expanding excursion train operations to include Train Line #2 would increase opportunities for the public to view natural areas along the railroad right-of-way south of Meadowview Road. Improvements to the railroad right-of-way and to loading platforms and passenger waiting areas would be needed to serve the excursion trains. The locations and appearance of these structures have not been determined; however, Guideline RAIL-11 requires that excursion train support structures be designed to fit in with the visual character of surrounding area. No substantial changes to visual character would occur along the railroad right-of-way. This impact would be **less than significant**.

Impact Aes-3: Increase in Light and Glare.

Light and glare conditions resulting from implementation of the General Plan would be similar to existing conditions. OSSHP and CSRM are located in urban areas with numerous sources of light and glare from nighttime lighting (street lights, security lighting) and daytime glare from window glass and cars. There would be no routine nighttime operations on the excursion train lines, as nighttime operation would be limited to occasional special events. Security lighting would be required at buildings and platforms associated with the excursion trains. Guideline FAC-12 requires lighting practices to ensure placement of exterior lights to minimize glare, obtrusive light, light trespass, and upward-directed wasted light. Sodium vapor lighting would not be allowed in OSSHP or CSRM. This impact would be **less than significant**.

5.6.2 AIR QUALITY

INTRODUCTION

This section analyzes impacts related to air quality and greenhouse gases (GHGs) that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

OSSHP and CSRM are located in the city of Sacramento, which for purposes of air quality regulation is within the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). SMAQMD is the primary local agency with respect to air quality for all of Sacramento County. Sacramento County is within the Sacramento Valley Air Basin (SVAB), which also includes all of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County. SMAQMD develops rules, regulations, policies, and goals to comply with applicable legislation. Although U.S. Environmental Protection Agency (EPA) regulations may not be superseded, both state and local regulations may be more stringent. Applicable regulations associated with criteria air

pollutants, toxic air contaminants (TACs), and odor emissions are described separately below. Air quality in this area is determined by such natural factors as topography, climate, and meteorology, in addition to the presence of existing air-pollution sources and conditions. These factors are discussed below.

TOPOGRAPHY, CLIMATE, AND METEOROLOGY

The SVAB is relatively flat and bordered by mountains to the east, west, and north. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Delta, bringing with it pollutants from the heavily populated San Francisco Bay Area. The climate is characterized by hot, dry summers and cool, rainy winters. Periods of dense and persistent low-level fog, which are most prevalent between storms, are characteristic of SVAB winter weather. From May to October, the region's intense heat and sunlight lead to high ozone concentrations. Summer inversions are strong and frequent, but are less troublesome than those that occur in the fall. Autumn inversions, formed by warm air subsiding in a region of high pressure, have accompanying light winds that do not adequately disperse air pollutants.

Most precipitation in the area results from air masses that move in from the Pacific Ocean during the winter months. These storms usually come from the west or northwest. More than half of the total annual precipitation falls during the winter rainy season (November–February). The average winter temperature is a moderate 49 degrees Fahrenheit (°F). During the summer, temperatures range from 50°F to more than 100°F. The inland location and surrounding mountains shelter the area from many of the ocean breezes that keep the coastal regions moderate in temperature.

Regional flow patterns affect air quality patterns by moving pollutants downwind of sources. Localized meteorological conditions, such as moderate winds, disperse pollutants and reduce pollutant concentrations. An inversion layer develops when a layer of warm air traps cooler air close to the ground. Such temperature inversions hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground. During summer mornings and afternoons, these inversions are present over OSSHP. During summer's longer daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NO_x), resulting in ozone formation.

In the winter, temperature inversions dominate during the night and early morning hours but frequently dissipate by afternoon. The greatest pollution problems during this time of year are from carbon monoxide (CO) and NO_x. High CO concentrations occur on winter days with strong surface inversions and light winds because CO transport is extremely limited.

STATE CRITERIA AIR POLLUTANTS

Concentrations of the following air pollutants are used to indicate the ambient air quality conditions: ozone, CO, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable and fine particulate matter (PM₁₀ and PM_{2.5}, respectively), and lead. Because these are the most

prevalent air pollutants known to be deleterious to human health, and extensive documentation addresses these pollutants' criteria for affecting health, they are commonly referred to as "criteria air pollutants."

Both the California Air Resources Board (ARB) and EPA use monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. Sacramento County is currently designated nonattainment for the state and federal ozone and PM₁₀ and for state PM_{2.5} under the ambient air-quality standards (AAQS), and is either in attainment or unclassified for all remaining state and federal AAQS (ARB 2011a).

Ozone, PM₁₀, and PM_{2.5} concentrations are measured at Sacramento's T Street air-monitoring station. Other criteria pollutants are not currently monitored because of their attainment status. In general, the ambient air quality measurements from this station represent the air quality at OSSHP and CSRSM. AAQS were exceeded for ozone for 7, 3, and 0 days for the years 2008, 2009, and 2010, respectively. AAQS were exceeded for PM₁₀ for 0 days for the years 2008, 2009, and 2010. AAQS also were exceeded for PM_{2.5} for 15, 3, and 0 days for the years 2008, 2009, and 2010, respectively (ARB 2011b).

TOXIC AIR CONTAMINANTS

TACs, or in federal terms, hazardous air pollutants, are defined as air pollutants that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity and associated health risk may pose a threat to public health even at low concentrations.

In addition, naturally occurring asbestos, which was identified as a TAC by ARB in 1986, is located in many parts of California and is commonly associated with serpentine rock formations. Asbestos is the common name for a group of naturally occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. According to the California Division of Mines and Geology (now known as the California Geological Survey), naturally occurring asbestos would not be present on the OSSHP site (Churchill and Hill 2000).

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, headache). The occurrence and severity of odor impacts are subjective and depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they still can be unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. No major odor sources (e.g., wastewater treatment plants, landfills, confined animal operations) exist within 2 miles of OSSHP.

GREENHOUSE GASES

Certain gases in the earth's atmosphere, classified as GHGs, contribute to the trend of warming observed in the earth's climate, known as global warming or climate change. Prominent GHGs contributing to climate change are carbon dioxide (CO₂), methane, nitrous oxide, and fluorinated compounds. Emissions of GHGs contributing to global climate change are attributable in large part to human activities including industry/manufacturing, electricity generation, transportation, agriculture, construction, and land use change.

SENSITIVE RECEPTORS

Sensitive receptors are identified land uses that would be occupied by persons most sensitive to the effects of air pollution, such as the very young, the elderly, or people weak from illness or disease. These receptors are generally residential land uses, schools, hospitals, and retirement homes. Sensitive receptors located in and around OSSHP and CSRM include recreationists on-site and residences along new and expanded train routes between OSSHP and the Sacramento Zoo and between the proposed Pocket/Meadowview Station and the town of Hood, within approximately 200 feet of the OSSHP site and/or train tracks.

REGULATORY SETTING

CLEAN AIR ACT OF 1963, AS AMENDED

The federal government first adopted the Clean Air Act (CAA) (U.S. Code [USC] Section 7401) in 1963 to improve air quality and protect the citizens' health and welfare, which required implementation of national ambient air quality standards (NAAQS). The NAAQS are revised and changed when scientific evidence indicates a need. Current standards are set for sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, suspended particulate matter, fine particulate matter, and lead. These pollutants are collectively referred to as criteria pollutants. The CAA also requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies.

EPA is charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal CAA, which was enacted in 1970. The most recent major amendments made by the U.S. Congress were in 1990. EPA reviews all SIPs to determine whether they conform to the mandates of the CAA and its amendments and whether implementing the SIPs will achieve air quality goals. If EPA determines that a SIP is inadequate, a Federal Implementation Plan that imposes additional control measures may be prepared for the nonattainment area. If the air district fails to submit an approvable SIP or to implement the plan within the mandated time frame, sanctions may be applied to transportation funding and stationary sources of air pollution in the air basin (i.e., distinct geographic region).

Pursuant to the CAA, state and local agencies are responsible for planning for attainment and maintenance of the NAAQS. EPA classifies air basins as either attainment or “nonattainment” for each criteria pollutant, based on whether or not the NAAQS have been achieved. Some air basins have not received sufficient analysis for certain criteria air pollutants and are designated as “unclassified” for those pollutants. SMAQMD and ARB are the responsible agencies for providing air quality attainment plans and for demonstrating attainment of these standards within the project area.

FEDERAL CRITERIA AIR POLLUTANTS

As discussed above, EPA implements national air quality programs, with air quality mandates drawn primarily from the federal CAA. ARB is the agency responsible for coordinating and overseeing state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA).

SMAQMD attains and maintains air quality conditions in Sacramento County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of SMAQMD includes the preparing plans for the attainment of AAQS, adopting and enforcing rules and regulations concerning sources of air pollution, and issuing permits for stationary sources of air pollution. SMAQMD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air-quality and meteorological conditions, and implements programs and regulations required by the CAA and CAAA, and the CCAA.

The current version of SMAQMD’s *CEQA Guide to Air Quality Assessment* (Guide) (SMAQMD 2009) was released in December 2009. The Guide is an advisory document that provides lead agencies, consultants, and project applicants with uniform procedures for addressing air-quality and GHG impacts in environmental documents. All projects are subject to adopted SMAQMD rules and regulations in effect at the time of construction.

ODORS

Neither the state nor the federal government has adopted any rules or regulations for the control of odor sources. However, SMAQMD has adopted Rule 402, which specifically addresses nuisance associated with odors.

GREENHOUSE GASES

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (Chapter 488, Statutes of 2006, enacting Health and Safety Code Sections 38500–38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. ARB published its *Climate Change Proposed Scoping Plan* (Proposed Scoping Plan), which is the state’s plan to achieve GHG reductions required by AB 32 (ARB 2008). According to the Proposed Scoping Plan, forests in California sequester carbon. ARB expects

that approximately 5 million metric tons of CO₂ equivalent emissions can be reduced annually through sustainable forestry measures. The Proposed Scoping Plan was approved by ARB on December 12, 2008. Chapter 6 of the Guide recommends that projects disclose and reduce GHG emissions to the extent feasible and comply with the intent of AB 32 (SMAQMD 2009).

Currently, no federal laws related to GHG emissions and climate change are directly relevant to this analysis. EPA issued Title 40, Part 98 of the Code of Federal Regulations (CFR), which became effective December 29, 2009. This regulation requires large sources and suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHGs to submit annual reports to EPA. However, this mandatory GHG reporting law does not apply to this project or this analysis.

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact on air quality if it would:

- conflict with or obstruct implementation of the applicable air-quality plan,
- violate any air quality standards or contribute substantially to an existing or projected air quality violation,
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state AAQS (including releasing emissions that exceed quantitative thresholds for ozone precursors),
- expose sensitive receptors to substantial pollutant concentrations, or
- create objectionable odors affecting a substantial number of people.

Implementing the General Plan would have a significant impact related to GHGs if it would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

IMPACT ANALYSIS

Impact AQ-1: Short-Term Emissions of Criteria Air Pollutants Generated by Project Construction.

Construction-related emissions are described as short term or temporary, although they have the potential to result in a significant impact on air quality. The General Plan would be implemented over time as funding becomes available. Several projects would require minor construction activity, such as building upgrades, road surface improvement, and riverfront enhancement, and would not result in substantial temporary emissions. A limited number of projects could involve more extensive construction, such as developing the Gold Rush and Commerce area and additional structures within the Sacramento Southern Railroad area. These

plans or projects would include standard control measures, as required by SMAQMD, to limit emissions to less-than-significant levels. Goals AQ-1 and AQ-2 and associated Guidelines AQ-1 through AQ-12 in the General Plan outline standard control measures to be included in future projects involving construction. Therefore, this impact would be **less than significant**.

Impact AQ-2: Long-Term Emissions of Criteria Air Pollutants Generated by Project Operations.

Implementing the General Plan is not expected to result in a substantial increase in vehicle traffic on local and regional roadways, because the number of visitors who would travel to the proposed components of the General Plan, though greater than the current number, would not be expected to be of a magnitude that would alter general traffic patterns on local roadways. Project-generated, regional area- and mobile-source emissions of ROG, NO_x, CO, PM, and CO₂ were modeled using the URBEMIS 2007 Version 9.2.4 computer program (Rimpo and Associates 2008). This modeling was based on proposed land use types and sizes as described in the project description; trip generation data from Section 5.6.11, "Transportation and Traffic"; and default URBEMIS model settings. The trip generation rates input into the URBEMIS model assume that the proposed project would operate at full capacity, resulting in approximately 2,219 associated daily vehicle trips.

In addition to emissions from stationary sources and vehicle trips, new and expanded train operations would also result in increased emissions associated with the General Plan. Emissions from proposed train operations were calculated using emission factors developed by EPA for diesel-powered locomotives. Emissions related to train operations are presented in Table 5-1.

Table 5-1: Project Related Air Pollutant Emissions					
	ROG	NO_x	CO	PM	CO₂^a
Train Emissions					
Pounds per Day	11.25	20.41	193.93	4.93	–
Tons per Year (maximum of 378 annual train trips)	0.24	0.44	4.19	0.11	105.61
Vehicle Emissions					
Pounds per Day	12.41	14.81	171.63	2.37	–
Tons per Year (maximum of 2,219 daily trips)	2.33	3.15	29.89	0.44	2770.74
Area Source Emissions					
Pounds per Day	0.12	0.02	1.55	0.02	–
Tons per Year	0.01	0.00	0.14	0.00	0.23
Total Emissions					
Pounds per Day	23.78	35.24	367.11	7.32	–
Tons per Year	2.58	3.59	34.22	0.55	2876.57
SMAQMD Thresholds of Significance (Pounds per Day)	65	65	–	–	–
Notes: CO = carbon monoxide, CO ₂ = carbon dioxide, NO _x = oxides of nitrogen, PM = particulate matter, ROG = reactive organic gases					
^a CO ₂ emissions reported in metric tons.					
Source: Data modeled by AECOM; see Appendix F for complete results.					

Table 5-1 summarizes the modeled, project-generated, operational emissions of criteria air pollutants and ozone precursors under project buildout conditions in 2013. As summarized in Table 5-1, project operation during 2013 would result in daily unmitigated emissions of approximately 24 lb/day of ROG, 35 lb/day of NO_x, 367 lb/day of CO, and 7 lb/day of PM₁₀. Air pollutant emissions from mobile and area sources would be minimal and below SMAQMD numeric thresholds (65 lb/day of ROG and NO_x). This impact would be **less than significant**.

Impact AQ-3: Exposure to Toxic Air Contaminants (TAC).

Implementing the land uses proposed in the General Plan would not result in the generation of substantial TAC emissions. Project construction, including site preparations and building construction, would result in short-term generation of diesel exhaust emissions from the use of off-road diesel equipment required for site grading and other construction activities. Additional train trips associated with expanded rail operations would also incrementally increase diesel exhaust emissions. Diesel PM was identified as a TAC by ARB in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential for all other health impacts. The dose to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). It should be noted that the majority of diesel PM in the project area is attributable to existing traffic along I-5. According to the Office of Environmental Health Hazard Assessment, health-risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with implementation of a project (Salinas, pers. comm., 2004).

The potential sensitive-receptor exposure period related to implementation of the General Plan would be short and much less than the 70-year exposure period (construction emissions would be finite and excursion trains would operate seasonally and only 2 days per week, for less than 8 hours each day). In addition, diesel PM is highly dispersive and studies have shown that measured concentrations of vehicle-related pollutants, including ultrafine particles, decrease dramatically within approximately 300 feet of the source (Zhu et al. 2002). The use of equipment would be short, intermittent, and seasonal. For this reason, combined with the dispersive properties of diesel PM, and because primary construction activities would not be active within 300 feet of sensitive receptors for a substantial length of time, construction- and operations-related TAC emissions would not be anticipated to expose sensitive receptors to substantial pollutant concentrations. To verify this, air quality dispersion modeling was conducted using the U.S. EPA-approved Lakes Environmental AERMOD View dispersion model (version 6.8.6) to determine the concentration levels from train emissions at existing nearby sensitive receptors. The Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Risk Assessment Guidelines were used to evaluate potential health risk associated with operation of the train (OEHHA 2003). In addition to emission rate information, all air dispersion modeling was based on hourly pre-processed meteorological data obtained through AERMOD for Sacramento Executive Airport, assumed 6 months of weekend operation from 10:00 a.m. to 5:00 p.m., and assumed flat

terrain with a train emission height of 5 meters above area receptors (3 meters in height of the train stack, and 2 meters in height from the elevated track).

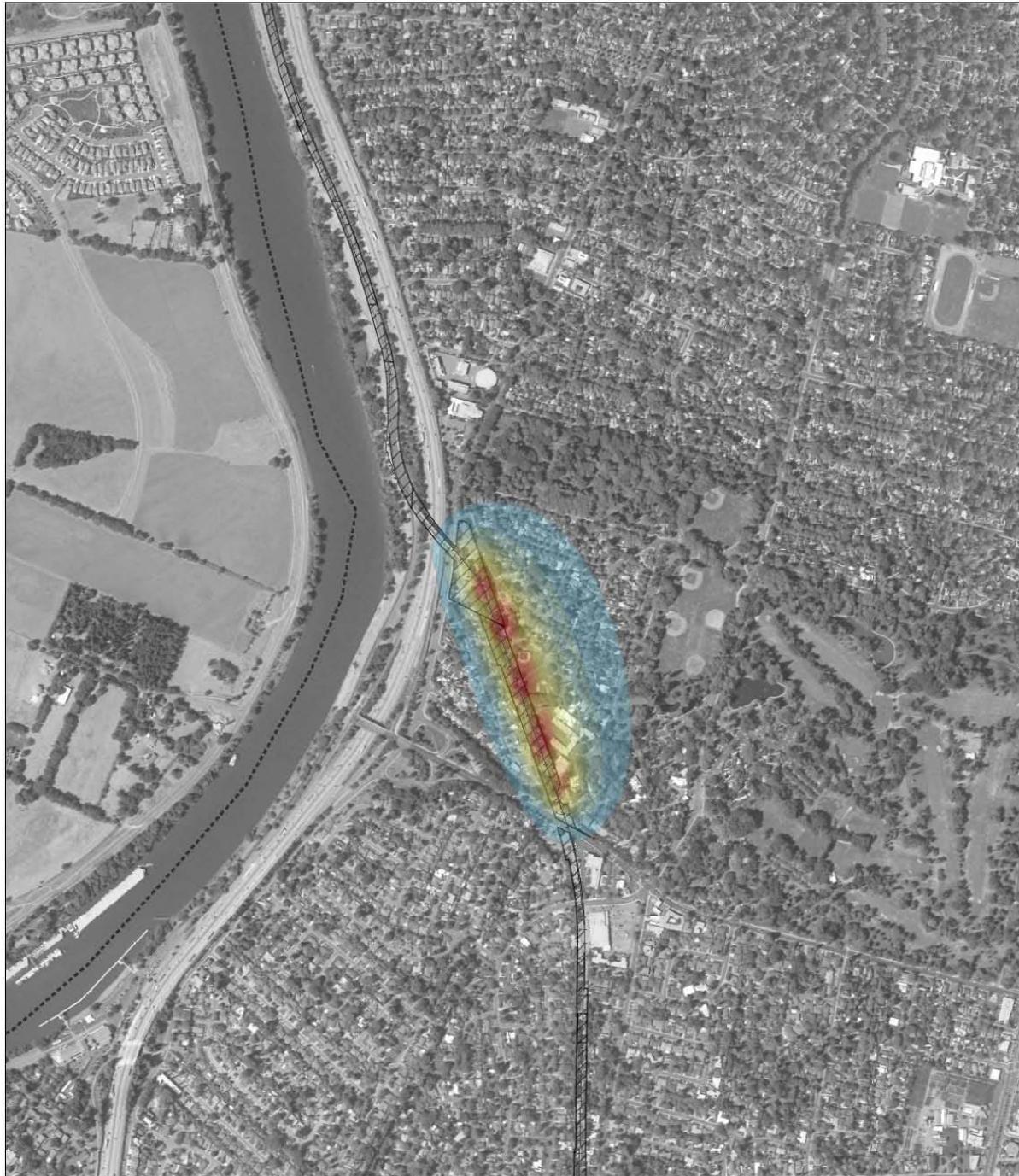
Carcinogenic risks and potential chronic non-cancer health effects from inhalation exposure at individual sensitive receptors, including nearby residences, schools, and worker sites were assessed using the dispersion modeling results and numerical values of toxicity provided by OEHHA (OEHHA 2003). Because diesel PM does not have published toxicity factors for short-term (acute) exposure, only potential long-term health impacts were evaluated. It should be noted that SMAQMD has established an incremental cancer risk threshold of greater than 10 in one million and a Hazard Index (HI) greater than 1 at any off-site receptor. These thresholds assess both the project-specific impact as well as the potential for a particular project to contribute to a potential cumulative impact. A summary of maximum cancer risk and non-cancer health impacts values is shown in Table 5-2. Dispersion modeling results are presented in Exhibit 5-1 and detailed train emission calculations are included in Appendix F.

Table 5-2: Summary of Modeled Maximum Health Risk Impacts by Individual Receptor

Individual Receptor Type	Health Risk Impact ¹	
	Cancer Risk (per million)	Noncancer Chronic Hazard Index
Residential Receptors		
Maximum Exposed Individual Resident (MEIR)	0.42	0.05
Worker (Occupational) Receptors		
Maximum Exposed Individual Worker (MEIW)	1.56	0.11
School Receptors		
Maximum Exposed Individual Child (MEIC)	1.56	0.11
SMAQMD Threshold	10	1
¹ Cancer risk shown is total cancer risk, expressed in cases per million people, from diesel particulate matter. Cancer risk for residential receptor is based on a 70-year exposure. Cancer risk for worker receptors is based on an adjusted worker exposure in accordance with OEHHA (OEHHA 2003). The cancer risk shown for the school is based on a 9-year student exposure using inhalation and body weight factors developed by OEHHA for children. See Appendix F for detailed input parameters and modeling results. Source: Data modeled by AECOM in 2011		

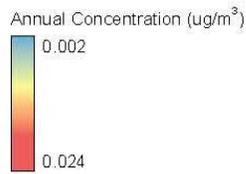
Residential locations evaluated for health risk impacts include the residential structures located along Darnel Way, Sherburn Avenue, Aidan Avenue, San Mateo Way, 14th Avenue, and 12th Street. Of the residential locations evaluated within the vicinity of the project, the incremental increase in cancer risk at the Maximum Exposed Individual Receptor (MEIR) was determined to be 0.4 in 1 million (Table 5-2). The HI for increased non-cancer chronic risk at the MEIR was determined to be 0.05 (Table 5-2). Both the MEIR for increased cancer risk and highest HI for non-cancer chronic risk occurred at an existing residence on Darnel Way located west of the proposed rail line.

Exhibit 5-1: Dispersion Modeling Results

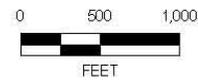


LEGEND

- Cities
- County Line
- +++ Railroads
- ▨ Planning Area



AECOM



Aerial Image: NAIP 2010
X 08110141.04 042 1/12

As shown in Table 5-2, increased cancer risk at the Maximum Exposed Individual Worker (MEIW), based on worker exposure assumptions, was determined to be 0.4 in one million. This worker receptor is located at the Holy Spirit Catholic School. The HI for increased noncancer chronic risk at the MEIW was 0.1.

To evaluate the increase in potential health risk impacts to children that attend the Holy Spirit Catholic School the 9-year exposure scenario recommended by OEHHA to estimate health risk for children was used. This exposure scenario accounts for the higher breathing rate to body mass ratio of a child compared to an adult and is appropriate for use in estimating exposure to children. The Maximum Exposed Individual Child (MEIC) was determined to be 1.6 in 1 million (Table 5-2). The HI for increased non-cancer chronic risk at the MEIC was determined to be 0.1 (Table 5-2). It should be noted, however, that children are unlikely to be exposed to this level of emissions from the train since the excursion train would operate mainly on weekends, when children would not be present at the school. The results of the dispersion modeling are shown in Exhibit 5-1.

As shown above, the projected incremental increases in health risks at the nearest and consequently all receptors would be less than the established significance thresholds for cancer and non-cancer health risks. Therefore, implementation of the General Plan would not be expected to result in additional human health risks and potential health-related effects, nor considerably contribute to such risks or effects, as a result of long-term operational emissions associated with increased train operations and would not expose sensitive receptors to substantial pollutant concentrations. This impact is **less-than-significant**.

Impact AQ-4: Exposure to Objectionable Odors.

Implementing the General Plan would result in diesel exhaust emissions from on-site equipment during construction phases, from excursion train pass-bys, and from occasional maintenance pass-bys. The diesel exhaust emissions would be intermittent and temporary and would dissipate rapidly from the source. Train diesel emissions also would be intermittent because daily operations would be limited to only 2 days per week for 6 months of the year. Odors from diesel emissions from train pass-bys would occur, but they would dissipate rapidly and be similar to diesel truck pass-bys. No other existing odor sources are located near the OSSHP and CSRM project sites, and the General Plan would not involve the long-term operation of any new sources of odors. Thus, General Plan implementation would not result in exposure of sensitive receptors to objectionable odors. Therefore, this impact would be **less than significant**.

Impact AQ-5: Emission of Greenhouse Gases.

The General Plan is expected to result in short-term GHG emissions from construction equipment exhaust and from mobile and area sources associated with long-term operation of OSSHP and CSRM facilities. Mobile-source emissions of GHGs would include employee and visitor trips to OSSHP and CSRM in passenger vehicles and additional GHG emissions from expanded excursion train operations. Stationary-source emissions would be generated by on-

site facilities, such as air conditioning and heating of buildings, and other facilities, such as the safety and security office.

Emissions from construction of OSSHP and CSRM facilities under the General Plan would be temporary and finite. Because of the relatively small square footage and acreage of proposed development, construction emissions would not be expected to substantially contribute to regional GHG emissions. Implementing General Plan Goals AQ-1 and AQ-2 would further reduce the potential contribution of GHG emissions from construction activities. Operation of OSSHP and CSRM facilities under the General Plan would also result in an increase in vehicle trips to the site on a daily basis and in a slight increase in area-source emissions associated with the increased need for electricity and water. The number of vehicle trips associated with OSSHP and CSRM would be approximately 2,219 trips per day and was modeled using the same assumptions and modeling program (URBEMIS) as criteria air pollutants under Impact AQ-2. Emissions associated with project generated Mobile Sources would be 2,770 metric tons of CO₂ per year (MT CO₂/yr) and emissions generated by Area Sources would be 0.23 MT CO₂/yr, see Table 5-1 above. By incorporating multimodal access to OSSHP and CSRM through Goals CIRC-1, CIRC-3, CIRC-4, and CIRC-5, the General Plan would expand bicycle and pedestrian facilities and existing and proposed transit services, reducing vehicle trips and their associated GHG emissions. In addition to mobile and area sources, expanded excursion train emissions would produce up to 105.61 MT CO₂/yr. Total annual GHG emissions related to the project would be approximately 2,877 MT CO₂/yr, which is substantially less than AB 32 reporting thresholds of 20,000 MT CO₂/yr. Because of the General Plan's goals, minimal mobile-source emissions, and the fact that groups rather than individuals usually access historical centers (resulting in fewer vehicle trips per capita), long-term project operation would be unlikely to result in substantial GHG emissions or conflict with an applicable plan, policy, or regulation adopted to reduce GHG emissions. Future components of the General Plan requiring substantial construction would go through additional environmental review to ensure that the necessary mitigation and GHG-reduction measures are incorporated. This impact would be **less than significant**.

5.6.3 BIOLOGICAL RESOURCES

INTRODUCTION

This section analyzes impacts on biological resources that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

Refer to Section 2.3.2, "Natural Resources," in Chapter 2 of this General Plan for a description of existing conditions related to biological resources.

REGULATORY SETTING

Appendix B. “Supplemental Natural Resources Information” contains detailed descriptions of the various state and federal laws pertaining to the protection of natural resources within California and within the General Plan area.

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact on biological resources if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by DFG or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by DFG or USFWS;
- have a substantial adverse effect on federally protected wetlands (e.g., marsh, vernal pool, coastal) as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

IMPACT ANALYSIS

A variety of documents and additional information listed in Section 2.3.2, “Natural Resources,” as well as reconnaissance surveys conducted during preparation of the General Plan, aerial photographs, and results of natural-resource database searches were used to assess the impacts of General Plan implementation on vegetation, wildlife and fish.

OSSH and the CSRMM represent urban areas that have been for a long time. Because the General Plan does not propose any new major facilities that would interfere with movement of native resident or migratory fish and wildlife through the area or adversely affect established wildlife corridors, these topics are not discussed further in this analysis.

The planning area is owned by State Parks, with the exception of a portion of the railroad right-of-way owned by the Sacramento Regional Transit District; should the proposed excursion trains be operated between the Pocket/Meadowview area and the town of Hood, State Parks

would first acquire or negotiate an easement on that area of right-of-way. State lands are not subject to local land use jurisdiction; therefore, no potential exists for General Plan implementation to conflict with local policies and ordinances protecting biological resources. This topic is not discussed further in this section.

Impact Bio-1: Adverse Effects on Special-Status Species within Old Sacramento State Historic Park.

The entire planning area within Old Sacramento is developed, and likely does not support terrestrial special-status species because of the lack of suitable habitat; therefore, implementing the General Plan is not expected to adversely affect such species.

The Sacramento River, located adjacent to OSSHP, supports several special-status fish species, including salmonids. The General Plan proposes improvements to the waterfront that could have the potential to adversely affect these species through adverse effects of water quality. However, the General Plan includes the following goals and guidelines would help protect special-status fish species:

- OSSHP Goal NR-1 is aimed at managing the riverfront and floodplain in OSSHP to protect natural resources, in compliance with local and regional requirements for resource protection, permit requirements, and flood safety.
- OSSHP Guideline NR-3 calls for avoidance of impacts on sensitive aquatic species by conducting in-water work in compliance with permit requirements; it also calls for implementation of best management practices (BMPs).
- Goal NR-1 calls for the protection, maintenance and restoration of natural habitats and associated special-status species in the planning area. Guideline NR-3 calls for coordination with the National Marine Fisheries Service for specific activities that would affect the bank of the Sacramento River and have the potential to adversely affect listed fish species.
- Goal Water-1 and Guidelines Water-1 through Water-4 call for implementation of BMPs to protect water quality during construction of improvements and to treat stormwater runoff.

Implementing these goals and guidelines would reduce the adverse effects on special-status fish species that could result from reduced water quality caused by project proposed in the General Plan. Therefore, this impact would be **less than significant**.

Impact Bio-2: Adverse Effects on Special-Status Species from Excursion Train Operations.

As part of the General Plan, State Parks proposes to expand its existing excursion train operations. The proposed Train Line #1 to the Sacramento Zoo would use existing tracks and would not require construction of new tracks. A small loading platform would be constructed at the zoo to allow passengers to board and disembark from the train. This platform would be placed in previously disturbed areas within the existing railroad right-of-way and would not

require removal of vegetation. Therefore, expanding the existing excursion train line to the Sacramento Zoo would not affect special-status species or their habitat.

The General Plan also proposes operation of a new wildlife excursion and dinner train from the Pocket/Meadowview area to the town of Hood (Train Line #2). This would require construction of a small passenger loading station in the Pocket/Meadowview area, upgrades to or replacements of existing tracks, and some trimming and removal of vegetation along the railroad right-of-way to allow full-size engines and train cars to pass. Operation of the proposed wildlife excursion and dinner train would also require rehabilitation of tracks in the right-of-way north of Meadowview Road and south of the Sacramento Zoo, and vegetation clearing and track upgrades in the areas of right-of-way that have been overgrown with vegetation. Because the uses proposed by the General Plan would require some vegetation clearing within the railroad right-of-way and habitat conversion from natural vegetation to developed uses such as train tracks and a passenger station, special-status species that may occupy or use these habitats could be adversely affected.

Implementing the following General Plan goal and guidelines would help protect special-status species:

- Goal NR-1 is aimed at the protection, maintenance, and restoration of natural resources.
- Guideline NR-1 specifically calls for coordination with regulatory agencies regarding the need to survey for special-status species and address potential mitigation needs.
- Guideline NR-2 calls for preconstruction surveys for nesting raptors before any ground-disturbing activities that may affect such species.
- Guideline NR-3 calls for coordination with the National Marine Fisheries Service as described above in Impact Bio-1.

The areas of railroad right-of-way that would be converted from natural vegetation to developed uses are small and are expected to provide only marginal habitat for special-status species. For this reason, and because the General Plan contains multiple goals and guidelines aimed at protection of special-status species, this impact would be **less than significant**.

Impact Bio-3: Disturbance of Nesting Raptors.

The General Plan proposes construction of new tracks or upgrades to existing tracks and construction of a new passenger-serving facility in the Pocket/Meadowview area. Such activities could disturb nesting raptors that may nest outside of the railroad right-of-way, but within buffers generally prescribed by the resource agencies for avoidance of adverse effects. The General Plan includes Guideline NR-2, which calls for a survey for nesting raptors to be conducted before construction activities. Guideline NR-2 also provides information on how to avoid adverse effects on nesting raptors, should any be detected within the construction area's prescribed buffer zone. With implementation of Guideline NR-2, this impact would be **less than significant**.

Impact Bio-4: Adverse Effects on Riparian Areas or Other Sensitive Natural Communities.

The extent of riparian areas within OSSHP and CRMP is limited, and no other vegetation types that would qualify as sensitive natural communities exist within OSSHP and CSRM. Implementing the following General Plan goal and guidelines would help protect riparian areas and other sensitive natural communities within OSSHP and CSRM:

- General Plan OSSHP Goal NR-1 and Guidelines NR-4 through NR-7 and OSSHP Guideline NR-5 specifically call for enhancement of the riverfront in OSSHP, including the planting of native vegetation, management of nonnative invasive species, and opportunities to interpret the native vegetation along the riverfront.
- Guideline NR-4 calls for monitoring, protection, and restoration of sensitive natural communities in the planning area.
- Guideline NR-5 calls for minimization of removal of native vegetation.

With implementation of these goals and guidelines, implementation of the General Plan within OSSHP and CSRM is expected to improve riparian areas when compared with existing conditions.

The proposed excursion train to the Sacramento Zoo would not affect riparian areas or other sensitive communities because none of these resources are present in the planning area. Portions of the railroad right-of-way between the zoo and the Pocket/Meadowview area may contain seasonal wetlands, which would qualify as sensitive natural communities. Potential effects on these features are discussed in Impact Bio-5 below.

Riparian areas are present along portions of the railroad right-of-way for the proposed Pocket/Meadowview–Hood excursion train (Train Line #2), particularly where the right-of-way crosses Stone Lakes National Wildlife Refuge. However, the right-of-way upgrades required to enable operation of the excursion train would take place within the existing right-of-way, which is currently maintained through vegetation management. Furthermore, the railroad track, south of Freeport, are located on a secondary levee which consist of fill material. Therefore, removal of vegetation, including riparian vegetation, would be limited to tree trimming and vegetation removal to ensure that full-size engines and train cars are able to pass in the right-of-way. As discussed above, Guideline NR-4 in the General Plan calls for monitoring, protection, and restoration of sensitive natural communities in the planning area, while Guideline NR-5 calls for minimization of the removal of native vegetation. With implementation of these guidelines, effects of the proposed new excursion train line would be reduced and this impact would be **less than significant**.

Impact Bio-5: Adverse Effects on Federally Protected Wetlands.

Implementing the General Plan, specifically of the proposed riverfront elements, has the potential to affect the bank of the Sacramento River. The river is a navigable waterway subject to federal jurisdiction under Section 404 of the federal Clean Water Act (CWA) and is

considered a water of the United States. Any activity qualifying as placement of fill material within the ordinary high-water mark of the Sacramento River would require a permit from USACE before implementation. Agency coordination with USACE has been part of the planning process for this General Plan, and Guidelines NR-8 and NR-9 address the need for the project to receive CWA Section 404/401 permits and meet associated requirements before implementation. Implementing these guidelines would reduce impacts of the General Plan on federally protected wetlands and other waters of the United States in or adjacent to OSSHP and CSRSM to a less-than-significant level.

Portions of the railroad right-of-way, south of Sutterville Road have the potential to support scattered seasonal wetlands, which may be subject to federal jurisdiction under Section 404 of the CWA. The potential for presence of scattered seasonal wetlands is greatest in the areas of railroad right-of-way owned by the Sacramento Regional Transit District where railroad tracks have become overgrown.. The grassy expanses in the Pocket/Meadowview area where the passenger station would be constructed also have the potential to support scattered seasonal wetlands. The Stone Lakes National Wildlife Refuge area along the railroad right-of-way supports extensive complexes of seasonal and permanent wetlands, including freshwater marsh. The extent of wetlands within the right-of-way itself is limited, however, because the track is built on a berm and, in some segments, on existing levees of the Sacramento River. The necessary improvements would take place within the existing railroad right-of-way. Improvements needed along trestles that border wetlands within the Stone Lakes National Wildlife Refuge may require activities, including placement of fill, within areas that would be considered wetlands and other waters of the United States. As discussed above, General Plan Guidelines NR-8 and NR-9 address the need to obtain CWA Section 404/401 permits and meet associated requirements before project implementation. Implementing these guidelines would reduce effects of General Plan implementation on federally protected wetlands and other waters of the United States within the excursion train right-of-way. This impact would be **less than significant**.

Impact Bio-6: Conflict with an Adopted Conservation Plan.

The southern portion of the railroad right-of-way lies within the planning area of the proposed *South Sacramento Habitat Conservation Plan (SSHCP)*. The SSHCP is intended to provide a regional approach to issues related to urban development, habitat conservation, agricultural production, and open-space planning. The SSHCP would provide strategies to conserve habitat for nine special-status plants and 42 special-status wildlife species. The conservation strategy has four components: conservation (habitat acquisition), restoration, enhancement, and a limited amount of avoidance and minimization. If adopted, it would serve as a multi-species, multi-habitat conservation plan addressing the biological impacts of future urban development within the Urban Services Boundary in the southern portion of Sacramento County. The emphasis of the SSHCP is on securing large, interconnected blocks of habitat to protect intact subwatersheds while minimizing edge effects and maximizing heterogeneity. The process for developing the SSHCP was initiated in 1992. The SSHCP is currently undergoing environmental review, with a best-case estimate for completion and implementation of late 2012.

California State Parks has no plans to join the SSHCP. Even with the eventual adoption of the SSHCP, General Plan implementation would not be adversely affected by its implementation, because California State Parks is not a party to the SSHCP and because any development associated with the General Plan would take place within a previously established railroad right-of-way and in very limited areas within the developed Pocket/Meadowview area, which lies within the Urban Services Boundary. This impact would be **less than significant**.

5.6.4 CULTURAL RESOURCES

INTRODUCTION

This section analyzes impacts related to cultural resources that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

Refer to Section 2.3.3, “Cultural and Historic Resources,” in Chapter 2 of this General Plan for a description of existing conditions related to cultural resources.

REGULATORY SETTING

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. The following discussion summarizes the pertinent cultural resource regulatory framework applicable to the General Plan.

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

Section 106 of the National Historic Preservation Act

The General Plan would be subject to compliance with Section 106 of the National Historic Preservation Act (NHPA) if it were to require a Section 404 permit from USACE pursuant to the CWA or other permits or approvals from federal agencies. Regulation of the railroad right-of-way and associated activities by the Federal Railroad Administration result in another federal nexus for implementation of the General Plan. Section 106 of the NHPA, as amended, and its implementing regulations (36 CFR Part 800) require federal agencies to identify historic properties that may be affected by actions involving federal land, funds, approval, or permitting. Section 106 of the NHPA states that effects of a proposed undertaking on a resource must be determined if the resource is determined to be a historic property. If a historic property would be adversely affected by an undertaking, then prudent and feasible measures must be undertaken to avoid or reduce adverse effects. The State Historic Preservation Officer must be given an opportunity to review and comment on these measures before project implementation.

Criteria for National Register of Historic Places Listing

The National Register of Historic Places (NRHP), authorized by the NHPA, serves as the nation's official list of cultural resources worthy of preservation. Moreover, the NRHP forms a core element of a coordinated national effort to identify, evaluate, and protect resources that meet the criteria of historic properties, as defined below.

The criteria for listing in the NRHP, defined in 36 CFR 60.4, are as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history;*
- B. That are associated with the lives of persons significant in our past;*
- 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 to prehistory or history.*

In addition to meeting at least one of the criteria listed above, a resource must also retain enough integrity to enable it to convey its historic significance. The NRHP recognizes seven aspects or qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. To retain integrity, a property will always possess several, and usually most, of these aspects.

Most historic buildings and many historic archaeological properties are significant because of their association with important events, people, or architectural styles (Criteria A, B, and C); however, the significance of most prehistoric and some historic-period archaeological properties is usually assessed under Criterion D (above). This criterion stresses the importance of the information contained in an archaeological site, rather than its intrinsic value as a surviving example of a type or its historical association with an important person or event.

The Section 106 review process involves a four-step procedure:

- Initiate the Section 106 process by establishing the undertaking, developing a plan for public involvement, and identifying other consulting parties.
- Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.
- Assess adverse effects by applying the criteria of adverse effects on historic properties (resources that are eligible for inclusion in the NRHP).

- Resolve adverse effects by consulting with the State Historic Preservation Officer and other consulting agencies, including the Advisory Council on Historic Preservation if necessary, to develop an agreement that addresses the treatment of historic properties.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Environmental Quality Act and Criteria for California Register of Historic Resources Listing

CEQA requires consideration of the effects on historical and unique archaeological resources of projects that are financed by public agencies in California or require discretionary approval from such agencies (PRC Section 21083.2). Historical resources are defined as buildings, sites, structures, objects, areas, places, records, or manuscripts that are historically or archaeologically significant, or are significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (PRC Section 5020.1).

The State CEQA Guidelines (Section 15064.5) define three cases in which a property may qualify as a historical resource for the purpose of CEQA review (A–C):

- A. The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR).
- B. The resource is included in a local register of historic resources, as defined in PRC Section 5020.1(k), or is identified as significant in a historical resources survey that meets the requirements of PRC Section 5024.1(g) (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).
- C. The lead agency determines that the resource may be a historical resource as defined in PRC Section 5020.1(j) or Section 5024.1, or that the resource is significant as supported by substantial evidence in light of the whole record.

The CRHR is a statewide list of historical resources with qualities assessed as significant in the context of California’s heritage. The CRHR functions as an authoritative guide intended for use by state and local agencies, private groups, and citizens to indicate the types of cultural resources that require protection, to a prudent and feasible extent, from substantial adverse project-related changes. Properties that are listed or eligible for listing in the NRHP are included in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC Section 5024.1[d][1]).

Section 5024.1 defines eligibility requirements and states that a resource may be eligible for inclusion in the CRHR if it:

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, 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.

As with the NRHP, properties must retain integrity to be eligible for listing in the CRHR.

California Public Resources Code—Unique Archaeological Resources and Human Remains

PRC Section 21083.2 governs the treatment of unique archaeological resources, which must be afforded consideration in the assessment of impacts under CEQA. A unique archaeological resource is defined as “an archaeological artifact, object, or site about which it can be clearly demonstrated” as meeting any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

As specified by Section 7050.5 of the California State Health and Safety Code and PRC Section 5097.98, if human remains are inadvertently discovered, project work relative to the find must cease until an assessment of the remains, including determination of origin and deposition, is completed by the County Coroner, in consultation with the Native American Heritage Commission and/or appropriate Tribal representative(s). In the event of inadvertent discoveries, an ongoing program of Native American consultation provides an opportunity for such groups to participate in the identification, evaluation, and mitigation of impacts on human remains and funerary objects.

When a project will affect state-owned historical resources, as described in PRC Section 5024, and the lead agency is a state agency, the lead agency must consult with the California State Historic Preservation Officer before approval of a proposed project (14 California Code of Regulations [CCR] Section 15064.5[b][5]).

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact on cultural resources if it would:

- cause a substantial adverse change in the significance of historical resources as defined in State CEQA Guidelines Section 15064.5;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines Section 15064.5; or
- disturb any human remains, including those interred outside of formal cemeteries.

The definition of a historical resource and protection of archaeological resources provided in Section 15064.5 of the State CEQA Guidelines are described below.

HISTORICAL RESOURCES

Section 15064.5 of the State CEQA Guidelines states that a project would result in a significant impact if it would cause a substantial adverse change in the significance of a historical resource based on the following criteria:

- (b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.*
- (1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired.*
- (2) The significance of a historical resource is materially impaired when a project:*
- (A) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register of Historical Resources; or*
- (B) Demolishes or materially alters in an adverse manner those physical characteristics [of a historical resource] that account for its inclusion in a local register of historical resources (pursuant to section 5021.1(k) of the Public Resources Code), or its identification in a historical resources survey meeting the criteria in section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or*
- (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.*
- (3) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating,*

Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.

ARCHAEOLOGICAL RESOURCES

CEQA protects archeological resources in the following manner:

- When a project would affect an archaeological site, a lead agency must first determine whether the site is a historical resource (State CEQA Guidelines, Section 15064.5[a]).
- If a lead agency determines that the archaeological site is a historical resource, the lead agency must refer to the provisions of PRC Section 21084.1 and Section 15126.4 of the State CEQA Guidelines, and the limits contained in PRC Section 21083.2 (described above under “California Public Resources Code—Unique Archaeological Resources and Human Remains”) do not apply.
- If an archaeological site does not meet the criteria defined in Section 15064.5(a) of the State CEQA Guidelines but does meet the definition of a unique archaeological resource in PRC Section 21083.2, the site must be treated in accordance with the provisions of Section 21083.2.

IMPACT ANALYSIS

Impact CUL-1: Adverse Effect on Significant Prehistoric and Historic-Era Resources.

Several significant cultural resources (i.e., resources listed or eligible for listing in the NRHP or the CRHR) are located within OSSHP, CSRSM and in the vicinity. General Plan Goals CR-1 through CR-3, OSSHP Goals CR-1 through CR-2, and CSRSM Goal CR-1; and Guidelines CR-1 through CR-11, OSSHP Guidelines CR-1 through CR-5, and CSRSM Guidelines CR-1 through CR-4, are aimed at the protection of historic and prehistoric resources. Specifically, these goals and guidelines call for establishment of procedures to identify significant cultural resources during the planning and design phases of area-specific projects, and to avoid or reduce adverse effects on historic properties, monitor construction activities, and implement appropriate mitigation measures.

Known significant historic resources in the planning area include:

- The Big Four Building and the B. F. Hastings Building have both been determined to be National Historic Landmarks (NHL), and both buildings are listed in the NRHP and CRHR
- The Dingley Spice Mill is listed as contributing to the Old Sacramento NHL district and is listed in the NRHP and CRHR
- The Central Shops Historic District that includes the Erecting Shop, Boiler Shop, turntable, transfer table, and firing line is listed on the Sacramento Register of Historic and Cultural Resources; State Parks is also in the process of nominating the Central Shops Historic District to the NRHP.

- Additionally, two sites in OSSHP are listed as California Historic Landmarks including the site of the first stage and railroad, and site of the groundbreaking of the transcontinental railroad, both at the corner of Front and K Street

However, the significance of other potential cultural resources, located within OSSHP and CSRMM is not yet known. OSSHP was recorded and evaluated before current professional standards were established. General Plan Goals CR-1 through CR-2, OSSHP Goals CR-1 through CR-2, CSRMM Goals CR-1, and Guidelines CR-1 through CR-14 call for management and protection of significant resources by preparing a Historic Properties Management Plan/Historic Properties Treatment Plan, which includes identifying, recording, and evaluating resources according to state and federal significance criteria, using current professional standards.

Mitigation measures to prevent adverse effects on sensitive cultural resources would be implemented as required by procedures identified in Section 106 of the NHPA (36 CFR 800.6 and PRC 5024.5[b] and its implementing regulations) for any project determined to be a federal undertaking. CEQA requires lead agencies to adopt feasible mitigation measures for significant impacts on historic resources and unique archaeological resources. Mitigation measures would be developed and incorporated into the General Plan through a consultation process with any federal agencies that may be involved, as well as with State Historic Preservation Officer, other state agencies as appropriate, and interested members of the public. The State CEQA Guidelines (Section 15126.4) provide guidance on preferred strategies to mitigate impacts on historic resources, indicating that preservation in place is the preferred approach and enumerating other mitigation options. Limits on the potential costs of mitigating unique archeological resources are presented in PRC Section 21083.2.

Implementing the General Plan goals and guidelines described above and mitigation measures required by Section 106 of the NHPA and by CEQA would reduce potential adverse effects on identified and potential significant cultural resources. With implementation of these goals, guidelines, and measures, this impact would be **less than significant**.

5.6.5 GEOLOGY, SOILS, AND SEISMICITY

INTRODUCTION

This section analyzes impacts related to geology, soils, and seismicity that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

Refer to Section 2.3.1, "Physical Resources," in Chapter 2 of this General Plan for a description of existing conditions related to geology, soils, seismicity, and paleontology. Paleontology was eliminated from further analysis as explained under Section 5.5.3 above.

REGULATORY SETTING

No federal, regional, or local plans, regulations, or laws related to geology, soils, or paleontology apply to the proposed General Plan. The following state laws and regulations address building safety and apply to seismic safety related to exposure of people or structures to seismic activity.

CALIFORNIA BUILDING STANDARDS CODE

Title 24, Part 2 of the California Code of Regulations (California Health and Safety Code [HSC] Part 2.5) is also referred to as the California Building Standards Code (CBSC). The CBSC is published in its entirety every 3 years by order of the California Legislature, with supplements published in intervening years. The California Legislature delegated authority to various state agencies, boards, commissions, and departments to create building regulations to implement the state's statutes.

CALIFORNIA HISTORICAL BUILDING CODE

The California Historical Building Code (CHBC), Part 8 of Title 24 (HSC Part 2.7), governs preservation of qualified historical buildings or properties in California. The CHBC provides for alternative regulations and standards for rehabilitating, preserving, restoring (including completing related reconstruction), or relocating qualified historical buildings or structures, as defined in HSC Section 18955. The intent of the CHBC is to save California's architectural heritage by recognizing the unique construction problems inherent in historical buildings and providing a code to deal with these problems. The CHBC facilitates rehabilitation, restoration, or change of occupancy of qualified historical buildings or structures and enables preservation of their historical value, while also protecting building occupants from fire, seismic forces, or other hazards and providing reasonable availability to and usability by the disabled. The regulations of the CHBC have the same authority as state law, and liability is the same as for prevailing law.

State agencies must apply the alternative regulations adopted by the State Historical Building Safety Board pursuant to HSC Section 18959.5 when they permit repairs, alterations, and additions necessary for preservation, restoration, rehabilitation, safety, relocation, or continued use of qualified historical buildings or structures (HSC Sections 18951–18954).

For the provisions of the CHBC to apply to a structure under consideration, the structure must be qualified by being designated as a historical building or structure, defined as follows by HSC Section 18955:

... any structure or collection of structures, and their associated sites deemed of importance to the history, architecture or culture of an area by an appropriate local or state governmental jurisdiction. This shall include structures on existing or future national, state or local historical registers or official inventories, such as the National Register of Historic Places, State Historical Landmarks, State Points

of Historical Interest, and city or county registers or inventories of historical or architecturally significant sites, places, historic districts or landmarks.

Chapter 8-7 of the CHBC contains structural regulations providing performance standards for the structural safety of buildings designated as qualified historical buildings or properties. The structural regulations in Section 8-705 address gravity loads, wind, and seismic loads. Lateral load regulations in Section 8-706 address lateral loads, including resistance to wind and seismic load. Section 8-706 requires that unreinforced masonry bearing wall buildings comply with Appendix Chapter 1 of the Uniform Code for Building ConservationTM, 1994 edition, and as modified by the CHBC.

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact related to geology, soils, and seismicity if it would:

- expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - 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;
 - strong seismic ground shaking;
 - seismic-related ground failure, including liquefaction; or
 - landslides;
- result in substantial soil erosion or the loss of topsoil;
- be located on a 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;
- 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; or
- 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.

IMPACT ANALYSIS

Impact GEO-1: Risk of Exposure to Geologic and Seismic Hazards.

No active faults are mapped in the immediate planning area by the California Geological Survey or the U.S. Geological Survey, and the area is not located within an Alquist-Priolo Earthquake Fault Zone. Therefore, fault ground rupture is unlikely in the planning area. The Sacramento

area is an area of relatively low seismicity; however, as described in Chapter 2, “Existing Conditions,” seismic events occurring on earthquake faults in the Coast Ranges, Sierra Nevada foothills, and San Francisco Bay Area have resulted in minor structural damage in the Sacramento area.

Implementing the General Plan would result in ongoing public use of a variety of structures within OSSHP and CSRM, namely existing modern-era buildings such as the RHM, RTM, and reconstructed historic buildings such as the Passenger Depot, Freight Depot, and Big Four Building. Use of the historic B. F. Hastings Building would continue as well. Buildings currently open to the public meet safety standards. Any newly constructed buildings would be required to comply with the CBSC. The CBSC mandates compliance with structural building standards to maintain seismic safety. Building design and structural methods must address on-site characteristics including soils and underlying geology. As described in General Plan Guideline SAFE-2, historic buildings not previously open to the public would be required to comply with the CHBC before being made available for public use. Therefore, this impact would be **less than significant**.

Impact Geo-2: Adverse Effects Caused by Seismic-Related Ground Failure, Including Liquefaction, Landslides, and Expansive Soils.

Even though ground shaking or liquefaction could potentially damage structures and endanger people within OSSHP during a seismic event, the expected magnitude of ground shaking from large regional earthquakes is relatively low in the planning area (USACE and WSAFCA 2010:3.4-17). As noted in General Plan OSSHP Guideline SAFE-1, additional site-specific geotechnical studies would be conducted to determine the project’s susceptibility to liquefaction and to determine whether specific structural designs are required to minimize this risk. With implementation of this guidelines, this impact would be **less than significant**.

Impact Geo-3: Soil Erosion or the Loss of Topsoil.

Implementing the General Plan would result in ground disturbance associated with construction of the Gold Rush and Commerce Block, changes to the bicycle path, and improvements to Riverfront Park. This ground disturbance would involve excavation for foundations and infrastructure, but would not involve major recontouring of the site. Temporary increases in erosion may result from the geotechnical investigations and construction activities. An increase in permeable surfaces (walkways, roofs) may increase runoff, resulting in erosion.

The potential for erosion impacts would be reviewed during development of the final grading plan and in the final project design. The project would implement terms of the National Pollutant Discharge Elimination System (NPDES) permit applicable to control of construction site stormwater runoff, including standard BMPs for erosion control and preparation and implementation of a storm water pollution prevention plan (SWPPP). The final design and construction specifications for all project components would include implementation of standard erosion, siltation, and soil stabilization BMPs. Before the start of construction, State

Parks (or its designated contractors) would file a notice of intent with the Central Valley Regional Water Quality Control Board.

During implementation of the General Plan, standard erosion, siltation, and BMP measures would be implemented; a SWPPP would be prepared and implemented, as needed; and the conditions of the NPDES general stormwater permit for construction activity would be followed. Therefore, this impact would be **less than significant**.

5.6.6 HAZARDS AND HAZARDOUS MATERIALS

INTRODUCTION

This section analyzes impacts related to hazards and hazardous materials that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

HAZARDOUS MATERIALS

Hazardous materials can be defined as items, substances, or chemicals that are health hazards or physical hazards and/or can cause harm to people, plants, or animals when released into the environment. Hazardous materials may be released into the environment through spilling, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposal. The use of hazardous materials is common in many commercial, industrial, and manufacturing activities, and in general household activities. Special methods must be used to dispose of, store, and treat hazardous materials. Common hazardous materials currently used within the the planning area include gasoline, oil products, and solvents used for vehicle operations (including train operations) and cleaning solvents and pesticides used for facilities maintenance.

In September 2011, a search of the state hazardous waste and substances database known as the “Cortese List” (described below in “Regulatory Setting”) was performed by AECOM for the vicinity of OSSHP and CSRM (DTSC 2007; SWRCB 2010). No documented hazardous materials release sites are recorded within OSSHP; however, the site of the *Railyards Specific Plan* is located northeast of the project site and includes the future museum of Railroad Technology. The railroad right-of-way extending south from near OSSHP to the town of Hood passes adjacent to the project area for the *Sacramento Docks Area Specific Plan*, which is the site of a number of contaminated properties. Studies of the potential for hazardous materials at the Railyards and Docks Area sites, as well as nearby areas, are described below.

Railyards Specific Plan Area

The following information is summarized from the *City of Sacramento Railyards Specific Plan Draft Environmental Impact Report* (City of Sacramento 2007:6.5-2 through 6.5-13).

Most of the Railyards Specific Plan area (Railyards SPA) is located immediately north and northeast of the planning area; the portion of OSSHP that encompasses Riverfront Park is located within the Riverfront District of the Railyards SPA. The Railyards SPA is located on the site of the former Union Pacific Railroad Railyards, where the railroad's principal locomotive and maintenance rebuilding facility and other facilities operated, beginning 1863, when the western terminus of the Transcontinental Railroad was established. A wide variety of activities associated with assembly, construction, repair, and refurbishing of locomotives and rail cars occurred on the site: steel fabrication, brick production, boiler-making, copper and tinsmithing, blacksmithing and machine work carpentry, metal plating, upholstering, washing, welding and cutting, paint removal and application, and sandblasting. Many types of chemicals and heavy metals were used in the operations—fuels, caustic solutions, paints, solvents, and metal alloys. The historic activities involved on-site disposal and spills and other releases of hazardous chemical wastes, resulting in soil and groundwater contamination. As a result, the Railyards are now listed as a state Superfund site, and are included on the Cortese List (see “Regulatory Setting” below).

Because of the historic uses and practices on the site, soils within the Railyards SPA contain metals—primarily lead, petroleum hydrocarbons, volatile organic compounds, and asbestos. Union Pacific Railroad and the California Department of Toxic Substances Control (DTSC) entered into an Enforceable Agreement in 1988 regarding the investigation and remediation of hazardous substances at the Railyards. This agreement specifies remedial actions and documentation that must be produced and submitted to DTSC as part of the remediation process. The investigation and remediation process has been ongoing since 1994.

I-5 Riverfront Reconnection Project

According to the *Initial Study/Mitigated Negative Declaration for the I-5 Riverfront Reconnection* (City of Sacramento 2011), a significant plume of dissolved-phase, chlorinated volatile organic compounds (the “South Plume”) extends southward under Downtown Sacramento from its origin at 401 I Street (Union Pacific Railyards north of the Amtrak Station). The plume extends beneath L Street, to just north of R Street. The western boundary of the plume generally coincides with 5th Street, approximately 0.35 mile from the Sacramento River. Impacted groundwater is being pumped and treated both at the Railyards and near the southern terminus of the plume at a rate of approximately 400,000 gallons per day; pumping generally creates a gradient that causes the groundwater to flow toward the pumps.

Sacramento Docks Area Specific Plan

The following information is summarized from the *Docks Area Specific Plan Draft Environmental Impact Report* (City of Sacramento 2008).

The *Sacramento Docks Area Specific Plan* site is located on 29.27 acres between Front Street and the Sacramento River, south of Old Sacramento and north of the Pioneer Bridge (the U.S. 50/Business 80 bridge). The existing excursion train rail line passes through the west side of the

Sacramento Docks Area Specific Plan Area (Docks SPA), paralleling the Sacramento River. The area was previously used for industrial uses dating back to at least 1895.

Four properties in and adjacent to the Docks SPA that were contaminated have been characterized and remediated. These four parcels are subject to Enforceable Agreements with DTSC, and land use covenants have been recorded on all four properties restricting future land uses. Two of the sites, the defunct manufactured gas plant (MGP) formerly operated by Pacific Gas and Electric Company (PG&E) and the Sacramento Housing and Redevelopment Agency (SHRA) parcels, are located within the central portion of the Docks SPA. Major landmarks in the vicinity of the PG&E and SHRA sites are the Sacramento River to the west, I-5 to the east, and the California Automobile Museum (formerly known as the Towe Auto Museum) to the south (City of Sacramento 2008:5.5-3). The excursion train rail line is located along the western edge of the PG&E site and the SHRA site on the Sacramento River levee. The MGP on the PG&E site operated from 1873 to 1956, producing gas from coal and petroleum as raw material. The MGP has been decommissioned. In 1990 site investigations detected elevated concentrations of petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), and metals in the soil and groundwater. The constituents of concern included benzene, toluene, ethylbenzene, and xylenes; PAHs; and metals. The land is currently vacant and fenced, and the site is paved to control soil migration and exposure. A groundwater extraction and treatment (GWET) system is located on this site to address groundwater contamination, and a cap covers the site. A deed restriction was recorded on the property title in 1993.

PG&E has completed several evaluations in the last 3 years, with the objective of identifying a remedy modification that will attain remedial goals sooner without the level of operations and maintenance (O&M) currently required. Modifying the remedy is necessary because the Ranney Collector, a nearby large-volume well, was decommissioned in 2009.

A land use covenant was recorded on the PG&E site in 2006. The remedy at this site has multiple components:

- *Groundwater:* The GWET system located on the PG&E site will continue to remove residual amounts of contaminants from the site; groundwater monitoring will continue to ensure that contaminants exceeding established limits are not migrating to the Ranney Collector.
- *Institutional Control:* A land use covenant has been recorded to provide for continued operation of the GWET system and associated monitoring wells; certain uses of the site are prohibited (residences, hospitals, schools, day-care centers, or any permanently occupied human habitation).
- *Operation & Maintenance:* An O&M agreement for this site (Enforceable Agreement Docket #HAS-O&M 07/08-074) has been executed for the continued operation, maintenance, and monitoring of the remedial systems necessary to protect public health, and an assurance mechanism is in place.

On April 30, 2008, DTSC completed the certification process and found that the site should be deleted from the “active” site list. However, the site will be placed on the list of sites undergoing O&M to ensure proper monitoring of long-term clean-up efforts. The certification was based on DTSC’s determination that all appropriate removal/remedial actions had been completed and that all acceptable engineering practices were implemented; however, the site requires ongoing O&M.

The SHRA site is located at 1920 Front Street, adjacent to the former PG&E MGP. The historical uses of the SHRA site include a cardboard box company and a lumber yard. Contamination was found at on the site in the southeast portion of the site. The land is currently used as "parking area" for the horse-drawn carriages that operate in Old Sacramento. A leaking underground storage tank was removed from this area in 1988 and contaminated soils were removed in December 1996. MGP residues from the PG&E site immediately to the south were deposited in a limited area on the SHRA site. Approximately 700 cubic yards of soil contaminated by PAHs was removed from this area in November 2001. The sampling and assessment of the site revealed limited areas where contamination was of concern.

Currently the cleanup status for the 20-acre Docks Area, which includes the PG&E site and the SHRA site, is listed by DTSC as “no further action as of 3/9/2010”. DTSC and the Redevelopment Agency of the City of Sacramento have entered into an Environmental Oversight Agreement (EOA) to cooperatively conduct further assessment of the property's condition and suitability for future residential, recreational, and commercial development (DTSC 2010 [California Department of Toxic Substances Control, EnviroStor. 2010. Available https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60000357, Accessed October 26, 2011].)

South of Broadway

Property south of the Pioneer Bridge, west of the right-of-way for the excursion train rail line, is currently (2011) undergoing remediation to eliminate contamination from the storage and distribution of petroleum products (RB Case #SL372513618)(REFERENCE: DTSC 2011. Geotracker. Available <tps://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=66+broadway%2C+sacramento%2C+ca>. Accessed October 26, 2011). The contaminated properties are owned by Conoco Phillips (formerly Tosco/Unocal) and Chevron. The Conoco Phillips property (Assessor’s Parcel Number 009-0012-064), also known as 66 Broadway, formerly contained large aboveground storage tanks. Conoco Phillips constructed and is operating an active soil and groundwater treatment system on this parcel to remove fuel constituents from below the surface. Contaminants include gasoline-related constituents including benzene and methyl tertiary butyl ether (also known as tert-butyl methyl ether or MTBE) in the soil and groundwater from fuel handling, and are primarily confined to the parcel boundaries. Soil vapor extraction combined with ozone sparging beneath the groundwater is the remedial technology being used. This site is located approximately 800 feet west of the excursion train rail right-of-way.

WILDLAND FIRE

Wildland fire protection in California is the responsibility of the state, local, or federal government, depending on the location. Local Responsibility Areas include incorporated cities, cultivated agricultural lands, and portions of desert lands. Fire protection in Local Responsibility Areas is typically provided by city fire departments, fire protection districts, and counties, and by the California Department of Forestry and Fire Protection (CAL FIRE) under contract to local government. OSSHP and CSRМ, including the excursion train rail right-of-way are located in a Local Responsibility Area within the incorporated area of the City of Sacramento and the unincorporated area of Sacramento County. OSSHP, CSRМ and the Sacramento Southern railroad right-of-way are shown as being located in a Non-Very High Fire Hazard Severity Zone as mapped by CAL FIRE (2008).

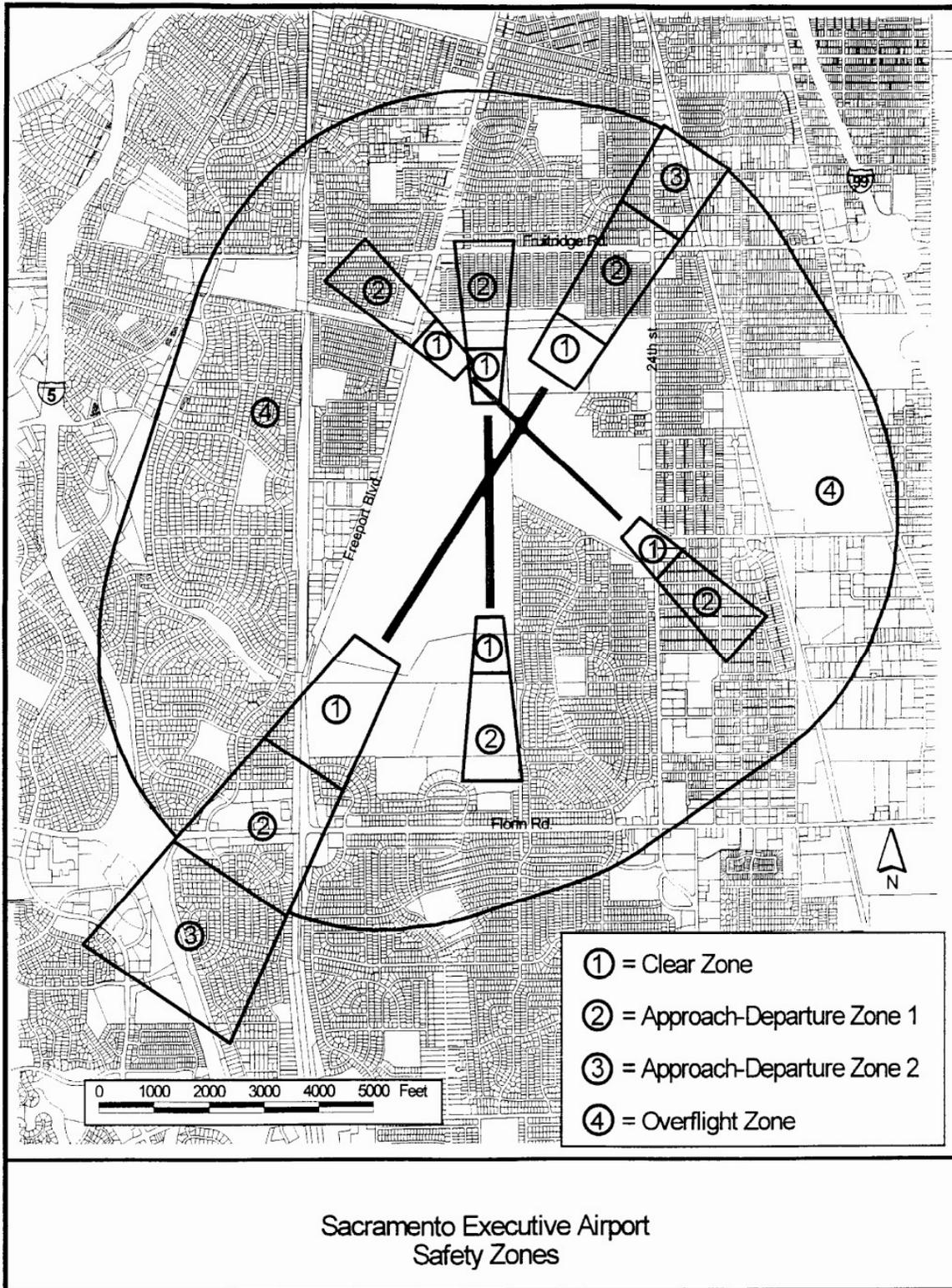
AIRPORT SAFETY

The General Plan proposes an expansion of the excursion train line, with one of the two proposed lines to include a station in the Pocket/Meadowview area, south of Sacramento Executive Airport. For maintenance purposes, train equipment would be moved on the rail line between the Pocket/Meadowview station and Old Sacramento repair facilities, passing near to Sacramento Executive Airport. The *Executive Airport Comprehensive Land Use Plan* (Executive Airport CLUP) (SACOG 1999) designates four safety zones surrounding Executive Airport: the Clear Zone, Approach-Departure Zone 1, Approach-Departure Zone 2, and the Overflight Zone. The extent and location of these zones is shown in Exhibit 5-2. The Clear Zone, near the end of the runway, is the most restrictive. Clear Zone areas are based on the Runway Protection Zone, established by the Federal Aviation Administration. The Approach-Departure zones are located under the takeoff and landing slopes; land uses are less restrictive in these areas. The Overflight Zone is the area under the traffic pattern and is even less restrictive.

The following land uses are incompatible in the Clear Zone and Approach-Departure Zones 1 and 2. Height restrictions are based on Part 77, Subpart C, of the Federal Aviation Regulations. Land uses that are incompatible in the Clear Zone and Approach-Departure Zones are any use that would:

- direct a steady or flashing light of white, red, green, or amber color toward an aircraft engaged in an initial straight climb following takeoff, or toward an aircraft engaged in a straight final approach toward a landing, other than a Federal Aviation Administration-approved navigational signal light or visual approach slope indicator;
- cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff, or toward an aircraft engaged in a straight final approach toward a landing;
- generate smoke, attract large concentrations of birds, or otherwise affect safe air navigation;
- generate electrical interference that could be detrimental to the operation of aircraft or airport instrumentation; or

Exhibit 5-2: Sacramento Executive Airport Safety Zones



Source: SACOG 1999; modified by AECOM in 2012

- include hazardous installations such as above ground oil, gas, or chemical storage facilities, but excluding facilities for noncommercial, private domestic, or private agricultural use.

Land use compatibility guidelines for safety are provided for the safety zones. These guidelines address issues such as maximum population density and land uses. The Executive Airport CLUP Land Use Compatibility Guidelines for Safety indicate that light rail, heavy rail (freight and passenger), and roadways are not compatible within the Clear Zone (SACOG 1999:35).

The railroad right-of-way near the intersection of Florin Road and SR 160 (Freeport Boulevard) is within the Clear Zone, Approach-Departure Zone 1, and Overflight Zone as designated in the Executive Airport CLUP. Freeport Boulevard, which parallels the east side of the railroad right-of-way, is also within the Clear Zone, Departure Zone 1, and Overflight Zone.

REGULATORY SETTING

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

The U.S. Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980 in response to the contamination found at an abandoned factory site at Love Canal, New York (42 USC 9601 et seq.). CERCLA established requirements for remediation of closed, abandoned hazardous waste sites; assigned liability to persons responsible for releases of hazardous substances at these sites; and designated the federal government as the lead agent for the cleanup of hazardous substances, pollutants, or contaminants identified at “Superfund” sites (described below). CERCLA was amended in 1986 to clarify federal responsibilities for remediating contamination found at these sites.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT

The Superfund Amendments and Reauthorization Act (SARA) included provisions appropriating funds to federal agencies for the remediation of contamination on federal sites (10 USC 2701 et seq.). SARA pertains primarily to emergency management of accidental releases. The law requires formation of state and local emergency planning committees, which are responsible for collecting material handling and transportation data for use as a basis for planning. Chemical inventory data are made available to the community at large under the “right-to-know” provision of the law. In addition, SARA requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory.

RESOURCE CONSERVATION AND RECOVERY ACT

Subtitle C of the Resource Conservation and Recovery Act (RCRA)(42 U.S.C. Section 6901 et seq.) addresses generation, handling, transportation, storage, treatment, and disposal of

hazardous waste. RCRA includes requirements for tracking the movement of waste from the site of generation to the site of its ultimate disposition. The 1984 amendments to RCRA created a national priority for waste minimization. Subtitle D establishes national minimum requirements for solid waste disposal sites and practices. It requires states to develop plans for managing wastes within their jurisdictions. Subtitle I requires monitoring and containment systems for underground storage tanks that hold hazardous materials. Tank owners must demonstrate financial assurance for the cleanup of a potential leaking tank.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Various state agencies regulate hazardous materials, including the California Environmental Protection Agency (EPA) and the California Emergency Management Agency (formerly known as the Governor's Office of Emergency Services). The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) enforce regulations for hazardous materials transport. DTSC has primary regulatory authority for enforcing hazardous materials regulations. State hazardous waste regulations are contained primarily in CCR Title 22. The California Occupational Health and Safety Administration has developed rules and regulations on hazardous and toxic substances to protect worker safety.

THE CORTESE LIST

The Cortese List, compiled pursuant to Section 65962.5 of the California Government Code and referenced at PRC Section 21092.6, is a planning document used by state and local agencies and developers to comply with CEQA. CEQA requires that the CEQA review documents for proposed projects provide information about locations of hazardous materials release sites. Section 65962.5 of the Government Code requires Cal/EPA to update the Cortese List database annually. Within Cal/EPA, DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional information about releases of hazardous materials for the Cortese List.

CALIFORNIA HAZARDOUS WASTE CONTROL LAW

The Hazardous Waste Control Law is California's primary statute on hazardous waste. This law implements RCRA as a "cradle-to-grave" waste management system in California, specifying that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The Hazardous Waste Control Law also establishes criteria for reuse and recycling of hazardous wastes used or reused as raw materials. This law exceeds federal requirements by mandating source-reduction planning and containing a much broader requirement for permitting facilities that treat hazardous waste. It also regulates several types of waste and waste management activities that are not covered by federal law under RCRA.

CALIFORNIA CODE OF REGULATIONS

Most state and federal regulations and requirements that apply to generators of hazardous waste are spelled out in CCR Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous-waste generators; transporters; and treatment, storage, and

disposal facilities. Because California is a fully authorized state according to RCRA, most RCRA regulations (those contained in 40 CFR 260 et seq.) have been duplicated and integrated into Title 22. However, because DTSC regulates hazardous waste more stringently than the federal EPA, the integration of California and federal hazardous waste regulations that makes up Title 22 does not contain as many exemptions or exclusions as does 40 CFR 260. Like the California Health and Safety Code, Title 22 also regulates a wider range of waste types and waste management activities than the RCRA regulations in 40 CFR 260. To aid the regulated community, California compiled the regulations on hazardous materials, waste, and toxics contained in CCR Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR Title 26, "Toxics." However, the California hazardous waste regulations are still commonly referred to as Title 22.

UNIFORM FIRE CODE

The Uniform Fire Code contains federal regulations relating to construction and maintenance of buildings and the use of premises. It addresses fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to protect and assist fire responders, industrial processes, and many other fire-safety requirements for new and existing structures and premises.

CALIFORNIA FIRE CODE

The California Fire Code (CCR Title 24, Part 9) is also referred to as part of the California Building Standards Code. The California Fire Code incorporates the Uniform Fire Code with necessary California amendments. It prescribes regulations consistent with nationally recognized good practices for safeguarding, to a reasonable degree, lives and property from the hazards of fires and explosions. It also addresses dangerous conditions arising from the storage, handling, and use of hazardous materials; conditions hazardous to life or property in the use or occupancy of buildings or premises; and provisions to assist emergency response personnel.

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact related to hazards and hazardous materials if it would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

- 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;
- for a project located 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, result in a safety hazard for people residing or working in the project area;
- for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- 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.

The General Plan would have no effect on an adopted emergency response plan or an adopted emergency evacuation plan. Therefore, this topic is not further discussed in this EIR.

IMPACT ANALYSIS

Impact Haz-1: Risk of Public Exposure to Hazardous Materials during Transport, Use, Disposal, or Accidental Release during Project Construction and Operation.

Construction activities on the site would involve the storage, use, and transport of hazardous materials (e.g., asphalt, fuels, lubricants, solvents). Operation at OSSHP and CSRМ would involve minor amounts of hazardous materials (e.g., fuels, cleaning solvents, pesticides) used during site operation and maintenance and operations of excursion trains.

Transportation of hazardous materials on area roadways is regulated by the California Highway Patrol (CHP) and the Caltrans, and use of these materials is regulated by DTSC, as outlined in CCR Title 22. State Parks and its contractor would be required to use, store, and transport hazardous materials in compliance with federal state, and local regulations during project construction and operation. Because the project would implement and comply with existing hazardous materials regulations, it is unlikely that impacts related to creation of significant hazards to the public through routine transport, use, disposal, or accidental release of hazardous materials would be caused by park operations within OSSHP, CSRМ, or along the excursion train right-of-way. However construction activities taking place on portions of the site located near the Railyards SPA or adjacent the Docks SPA where hazardous substances would potentially be present may result in exposure of the public or employees to hazardous substances. Excavations within OSSHP and CSRМ that require dewatering would be of potential concern because of the proximity of the South Plume originating under the Railyards.

In addition, railroad operations have historically involved the use and transport of potentially hazardous materials such as fuels and solvents, and accidental spills may have occurred within

the railroad right-of-way. Therefore, previously unidentified spills could be present within the right-of-way. Because of the historic land uses that have occurred within and near the General Plan area, and because the General Plan includes uses that could result in accidental spills of hazardous materials, there is a potential for public exposure to hazardous substances as a result of implementation of the General Plan. However, General Plan CSRM Guideline SAFE-2 requires that a Phase 2 ESA be conducted before any ground disturbance within the railroad right-of-way that lies adjacent to the Docks SPA site, to analyze soil and groundwater conditions beneath these sites. In addition, CSRM Guideline SAFE-1 requires that a Phase I ESA be performed before ground disturbance within the excursion train rail right-of-way, that recommendations for further investigations be followed, and that remedial actions recommended be completed before ground disturbance. Further, Guideline SAFE-3 requires State Parks to ensure that a groundwater management plan is prepared, identifying procedures to be implemented to ensure that project features do not adversely affect flow directions or rate of known contaminant plumes. Furthermore, State Parks and its contractor would be required to use, store, and transport hazardous materials in compliance with federal, state, and local regulations during General Plan construction and implementation. With implementation of the General Plan guidelines, and compliance with federal, state and local regulations related to hazardous materials, this impact would be **less than significant**.

Impact Haz-2: Risk of Exposure by Schools to Hazardous Materials during Project Construction and Operation.

Numerous schools are located within 0.25 mile of the railroad right-of-way. These schools include ; St. John Christian Academy on 4th Street, 0.3 mile from the railroad right-of-way; Holy Spirit School, 50 feet from the railroad right-of-way; Sutterville Elementary School, 0.24 mile from the railroad right-of-way; New Technology High School, 300 feet from the railroad right-of-way; Alice Birney Elementary School, 500 feet from the railroad right-of-way; Pony Express Elementary School, 0.23 mile from the railroad right-of-way; and John D. Sloat Elementary School, 0.27 mile from the railroad right-of-way. Two small private schools are located within 0.25 mile of the railroad right-of-way south of OSSHP, near the route of the proposed Train Line #2 for the excursion train; Southeast School is located west of I-5 on La Cueva Way, south of Pocket Road, and St. Thomas Aquinas Academy east of SR 160 (Freeport Boulevard) on Reenel Way south of Meadowview Road.

Construction activities along the excursion train line would involve the storage, use, and transport of hazardous materials (e.g., asphalt, fuels, lubricants, and solvents). Operation of the project would require minor amounts of hazardous materials (e.g., fuels, cleaning solvents, pesticides); however, excursion trains would not be transporting substantial amounts of hazardous materials.

As stated above in the analysis of Impact Haz-1, transportation of hazardous materials on area roadways is regulated by the CHP and Caltrans, and use of these materials is regulated by DTSC, as outlined in CCR Title 22. State Parks and its contractor would be required to use, store, and transport hazardous materials in compliance with federal, state, and local regulations during

General Plan construction and implementation. Because the project would implement and comply with existing hazardous materials regulations, it is unlikely that General Plan implementation would create significant hazards to schools through routine transport, use, disposal, or accidental release of hazardous materials. Therefore, this impact would be **less than significant**.

Impact Haz-3: Adverse Effects Related to Wildland Fires.

OSSHP and CSRM, including the railroad right-of-way area are located in a Local Responsibility Area and shown as being in a Non-Very High Fire Hazard Severity Zone, as recommended by CAL FIRE (2008). The railroad right-of-way is located within three different local fire protection districts: the Sacramento Fire Department within the city limits and the Cosumnes Community Services District and Courtland Fire District south of the city limits. Vegetation along the railroad right-of-way could present a fire hazard if not managed to minimize potential for fire near the tracks. Fires could be started by sparks from trains.

General Plan CSRM Guideline SAFE-4 would reduce the potential for wildfire because the brush control plan would be maintained along the railroad right-of-way to minimize wildfire risk and State Parks would coordinate with local fire protection districts and agencies to establish emergency response and fire response plans along the right-of-way of the excursion train rail line. With implementation of these safety goals and guidelines in the General Plan, this impact would be **less than significant**.

Impact Haz-4: Safety Hazard for People Residing or Working in a Project Area Located within an Airport Land Use Plan or Within 2 Miles of a Public or Public-Use Airport

Sacramento Executive Airport is approximately 4 miles to the southeast of OSSHP and the CSRM and Sacramento International Airport is located approximately 9 miles northwest. The railroad ROW crosses the Sacramento Executive Airport safety zones, as shown in Exhibit 5-2. OSSHP and CSRM are not located within an area covered by an airport land use plan, nor is it located within 2 miles of a public airport or public use airport.

The General Plan proposes an expansion of the excursion train lines, and Train Line #2 would include a station in the Pocket/Meadowview area. The ROW between the zoo and the station in the Pocket/Meadowview area would be used occasionally by trains from Train Line #2 when they need to travel to Old Sacramento for servicing. This segment would also be used during construction/upgrades of the tracks to enable operation of Train Line #2. The railroad right-of-way near the intersection of Florin Road and SR 160 (Freeport Boulevard) is within the Clear Zone, Approach-Departure Zone 1, and Overflight Zone for Executive Airport, as defined in the Executive Airport CLUP. Freeport Boulevard, which parallels the east side of the railroad right-of-way, is also within the Clear Zone, Approach-Departure Zone 1, and Overflight Zone. The Clear Zone covers an approximately 500-foot segment of the railroad right-of-way. Approximately 2,000 feet of the right-of-way are within Approach-Departure Zone 1. The Executive Airport CLUP Land Use Compatibility Guidelines for Safety indicate that light rail, heavy rail (freight and passenger), and roadways are not compatible within the Clear Zone

(SACOG 1999:35). This portion of the railroad right-of-way would not be used for public excursion trains, but would be used to move equipment between the Pocket/Meadowview–Hood excursion train line and the maintenance facilities in Old Sacramento. The number of people within the Clear Zone would be limited and the duration of their presence within the Clear Zone would be short. Guideline SAFE-7 requires State Parks to consult with the Sacramento County Airport Land Use Commission regarding safety measures needed to conduct maintenance activities along the portions of the railroad right-of-way that are within the Clear Zone for Runway 2-20 at Executive Airport. Therefore, with implementation of Guideline SAFE-7, this impact would be **less than significant**.

5.6.7 HYDROLOGY AND WATER QUALITY

INTRODUCTION

This section analyzes hydrology and water quality impacts that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

Refer to Section 2.3.1, “Physical Resources,” in Chapter 2 of this General Plan for a description of existing conditions related to hydrology and water resources.

REGULATORY SETTING

Please refer to the following subsections in Section 2.7.3, “Regulatory Influences,” of this General Plan for more information on regulations related to hydrology and water quality:

- “Section 401 Water Quality Certification/Porter-Cologne Water Quality Control Act”
- “Section 404 of the Clean Water Act”

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact related to hydrology and water quality if it would:

- violate any water quality standards or waste discharge requirements;
- 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 preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted);
- 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;

- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;
- create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- otherwise substantially degrade water quality;
- 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;
- place within a 100-year flood hazard area structures that would impede or redirect flood flows;
- expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- result in inundation by seiche, tsunami, or mudflow.

The General Plan would not place structures in a floodplain, nor would it involve construction of housing within a flood hazard area, alter drainage patterns in the area or create runoff that would exceed the capacity of existing or planning stormwater drainage systems; therefore, these topic are not discussed further in this section.

OSSHP, CSRM and Old Sacramento are served by City municipal utilities. The City currently provides municipal water and wastewater collection services to the planning area. Wastewater is treated at the Sacramento Regional County Sanitation District's wastewater treatment plant. Therefore, implementing the General Plan would not result in depletion of groundwater resources or in unregulated waste discharge. For this reason, these issues are not addressed further.

The planning are is not located in an area in danger of seiches, tsunamis or mudflows, and the proposed uses do not have the potential to create conditions that would cause such phenomena. Therefore, this impact is not discussed further in this analysis.

IMPACT ANALYSIS

Impact Hydro-1: Risk of Loss, Injury, or Death Involving Flooding.

Historical flooding in the vicinity of OSSHP generally occurred along the Sacramento and American Rivers. Recent improvements to the levees along these rivers have reduced the risk of flooding in Sacramento. As a result, in December 2008 the Federal Emergency Management Agency's Flood Insurance Rate Map for the city of Sacramento was revised. OSSHP and CSRM are in an area classified as Zone X, an area determined to be outside the 0.2 percent annual chance floodplain (500-year floodplain). Portions of the excursion train right-of-way are in Zone X or are in areas subject to 0.2 percent annual chance of flood, areas of 1 percent annual

chance of flood with average depths of less than 1 foot or with drainage areas of less than 1 square mile, or areas protected by levees from 1 percent annual chance of flood. Implementing the General Plan would not change the location of facilities in the floodplain and therefore would not increase exposure of the public to risk of loss, injury, or death involving flooding over existing conditions. This impact would be **less than significant**.

Impact Hydro-2: Temporary Effects on Water Quality from Stormwater Runoff, Erosion, or Spills.

Construction activities associated with implementation of the General Plan would require ground disturbance such as grading, excavation, and trenching for utilities and infrastructure installation. The potential for soil erosion and sedimentation in runoff from the site would increase during rainstorms. In addition, construction equipment has the potential to leak oil, gasoline, and other pollutants, which may be carried off-site in stormwater. However, regulatory mechanisms are in place that would minimize degradation of water quality from construction activities. These mechanisms include compliance with the NPDES General Construction Permit, which requires that erosion control plans be in place during construction. BMPs are required to be in place to minimize pollutants in stormwater and other nonpoint-source runoff. Implementing General Plan Guideline WATER-3 would protect water quality during construction activities. This impact would be **less than significant**.

5.6.8 LAND USE AND PLANNING

INTRODUCTION

This section analyzes land use and planning impacts that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

Refer to Section 2.7, “Planning Influences,” of Chapter 2 of this General Plan for a description of existing plans relevant to the proposed project.

The following local land use plans are described to provide the planning context in which the project site is located. Once the project site becomes property of State Parks, it would not be subject to local land use plans and regulations.

REGULATORY SETTING

Refer to Section 2.7, “Planning Influences,” of Chapter 2 of this General Plan for a description of existing plans relevant to the proposed project.

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact related to land use and planning if it would:

- physically divide an established community;
- conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- conflict with any applicable habitat conservation plan or natural community conservation plan.

IMPACT ANALYSIS

Impact LU-1: Potential for the Project to Physically Divide an Established Community.

The General Plan would not result in development that would physically divide a community. OSSHP and CSRM are located on the western edge of the city of Sacramento adjacent to the Sacramento River and Interstate 5 freeway. The freeway is an existing feature, as is, the river that divides the communities of Sacramento and West Sacramento.

The railroad right-of-way is an existing feature that passes through residential neighborhoods; however, in some areas, the railroad tracks do not exist or are in poor repair. In the area just east of I-5, the existing right-of-way is elevated and is a barrier separating the neighborhoods just south of 13th Avenue from the neighborhood to the south off Darnel Way. Extending excursion train operations to the Sacramento Zoo would not increase the effects of this physical division. The proposed excursion train from the Pocket/Meadowview area to the town of Hood would pass through the unincorporated town of Freeport and then would traverse mainly rural areas along the existing right-of-way. Therefore, implementing the General Plan would not create a physical division of an established community. This impact would be **less than significant**.

Impact LU-2: Project Consistency with the Sacramento 2030 General Plan, Applicable Regional Plans, and the County General Plan.

The *Sacramento 2030 General Plan* contains citywide historic and cultural preservation goals and policies directed toward historic and cultural preservation; identification and preservation of cultural resources; and public awareness and appreciation of cultural resources. Historic and Cultural Resource Policy CC.HCR 1.2 in the *Central City Community Plan* specifically addresses Old Sacramento as follows: “The City shall continue the development of historic ‘Old Sacramento’ as a major tourist, entertainment, and cultural area in the region.” Education, Recreation and Cultural Policy ERC 5.1.5 addresses the Old Sacramento Historic District as follows: “The City shall maintain and project the Old Sacramento Historic District, as defined by the 1967 Redevelopment Plan, while recognizing its importance for tourism and its role as a commercial district” (City of Sacramento 2009:2-132 to 2-139). The General Plan is consistent with the City’s general plan goals and policies and would facilitate implementation of the City’s goals to preserve and protect cultural resources and provide additional opportunities for heritage tourism and public appreciation of Sacramento’s cultural resources.

In addition, numerous plans have been adopted or are proposed for the areas in which OSSHP and CSRM are located and for adjacent parts of the Central City and Sacramento riverfront. All of the plans contain components that address revitalization of the riverfront, increasing pedestrian and bicycle connectedness along the Sacramento River and between Old Sacramento and adjacent areas. The Cities of Sacramento and West Sacramento have developed joint plans with the vision of a revitalized riverfront on both sides of the Sacramento River. Refer to Section 2.7.2, “Regional Planning,” in Chapter 2 for a more detailed description of the following plans:

- *Downtown Sacramento Redevelopment Strategy*—this plan supports implementation of the Sacramento Riverfront Master Plan (see below).
- *Sacramento Riverfront Master Plan (Cities of Sacramento and West Sacramento)*—this plan contains goals that envision Old Sacramento as part of a continuous riverfront open space system with multi-use trails and informal, semi-natural landscaping. The General Plan proposes to restore Riverfront Park (between I and J Streets) and provide better access to and along the river, making the waterfront an integral part of OSSHP. The park would be restored with native habitat, enhancing its natural setting along the river.
- *American River Parkway Plan*—The General Plan would extend the Sacramento River Bike Trail through Riverfront Park to J Street, providing additional bike and pedestrian access.
- *Downtown Sacramento Partnership Strategic Action Plan*—the General Plan is consistent with goals to develop the 1849 Scene and the Railroad Technology Museum.
- *Railyards Specific Plan*—The site of the proposed Railroad Technology Museum is located in the Railyards at the Central Shops Historic District; the proposed museum would use two of the historic buildings in the district, the Boiler and Erecting Shops. The Railyards would link Sacramento with Old Sacramento and the Sacramento River.
- *Sacramento Docks Area Specific Plan*—The Sacramento Docks Area is located south of Old Sacramento; the excursion train line runs along the top of the levee adjacent to the Sacramento River, immediately west of the Docks SPA. The Docks SPA provides circulation features and parks, both which help to create an interconnected riverfront system, connecting to Old Sacramento and the Railyards.
- *Washington Specific Plan and Bridge District Specific Plan (City of West Sacramento)*—Both plans include revitalization of the West Sacramento riverfront, across the way from Old Sacramento.

The General Plan is consistent with the vision to revitalize and reconnect the riverfront and Old Sacramento to these areas. The General Plan does not propose any new land uses that would be inconsistent with the County of Sacramento General Plan. Because the General Plan is consistent with both the *Sacramento 2030 General Plan*, the applicable regional plans, and the Sacramento County General Plan, this impact would be **less than significant**.

Impact LU-3: Project Consistency with Executive Airport Land Use Compatibility Plan.

The Executive Airport CLUP is described above in Section 5.6.6, “Hazards and Hazardous Materials,” under “Airport Safety.” The Executive Airport CLUP Land Use Compatibility Guidelines for Safety indicate that light rail, heavy rail (freight and passenger), and roadways are not compatible within the Clear Zone (SACOG 1999:35). Therefore, excursion train operations in this area are potentially incompatible with the Airport CLUP. The portion of the railroad right-of-way passing through the Clear Zone and Approach Zone would not be used for public excursion trains, but would be used to move equipment between the Pocket/Meadowview–Hood excursion train line and the maintenance facilities in Old Sacramento. The number of people within the Clear Zone would be limited and the duration of their presence within the Clear Zone would be short.

Implementing General Plan CSRM Guideline SAFE-3 would ensure that safety is maintained along the portions of the railroad right-of-way that are within the Clear Zone for Runway 2-20 at Executive Airport. This impact would be **less than significant**.

Impact LU-4: Potential Conflict with an Applicable Habitat Conservation Plan or Natural Community Conservation Plan.

The SSHCP is intended to provide a regional approach to issues related to urban development, habitat conservation, agricultural production, and open-space planning. The SSHCP would provide strategies to conserve habitat for nine special-status plants and 42 special-status wildlife species. The conservation strategy has four components: conservation (habitat acquisition), restoration, enhancement, and a limited amount of avoidance and minimization. If adopted, it would serve as a multi-species, multi-habitat conservation plan addressing the biological impacts of future urban development within the Urban Services Boundary (USB) in the southern portion of Sacramento County. The emphasis of the SSHCP is to secure large, interconnected blocks of habitat that focus on protecting intact subwatersheds while minimizing edge effects and maximizing heterogeneity. Habitat losses within the Sacramento County USB would be offset primarily by establishing large preserves outside the USB, but three core preserves and two satellite preserves would be established within the USB. Mitigation for impacts of a particular project on habitat must take place on the same geological formation as the affected area. As currently conceived, land developers that convert habitat within the Sacramento County USB would pay a defined per-acre fee to mitigate impacts. These fees would be used to protect, restore, maintain, and monitor habitat. The process for developing the SSHCP was initiated in 1992. The SSHCP is currently undergoing environmental review, with a best-case estimate for completion and implementation of late 2011 or early 2012 (McCormick, pers. comm., 2010).

Implementing the General Plan, including operation of the proposed excursion train lines, would not conflict with implementation of the SSHCP. This impact would be **less than significant**.

5.6.9 NOISE

INTRODUCTION

This section analyzes noise and vibration impacts that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

Existing ambient noise in the planning area is associated with vehicular traffic along roads adjacent to the planning area and activities on or near the Sacramento River. The dominant transportation noise source is I-5, which is located adjacent to Old Sacramento and follows the majority of the excursion train route south to the Sacramento Zoo. Ambient noise on the OSSHP and CSRSM properties also includes noise generated by general urban activity (e.g., landscaping; people talking; cars honking; heating, ventilation, and air conditioning [HVAC] systems); and train noise. Ambient noise along the excursion train routes would vary as the route passes through urban, suburban, and rural environments between OSSHP and the Sacramento Zoo and between the Pocket/Meadowview area and the town of Hood. Currently, the existing excursion train runs from OSSHP to the site of the former Riverside Baths in Land Park on Saturdays and Sundays, from April through October, and the Polar Express runs in December. The excursion train runs hourly from 10 a.m. to 5 p.m. Noise measurements of train pass-bys taken on September 25, 2011, were 65 A-weighted decibels (dBA) hourly equivalent noise level ($L_{eq}[h]$) and 85 dBA maximum noise level (L_{max}) at 60 feet from the tracks (Table 5-2). Occasional aircraft passing over (e.g., small private planes, traffic and police helicopters, aircraft from Sacramento International Airport) also add to the ambient noise level.

Sensitive receptors are generally defined as any residential buildings (single-family or multifamily), places of worship, schools, hospitals, and any other types of land uses where noise could cause sleep disruption or speech interruption. Sensitive receptors located near OSSHP include residences along 2nd Street (between J and L Streets) and at the intersection of K Street and Firehouse Alley. The *Delta Queen* and Embassy Suites Hotel in Old Sacramento also constitute sensitive receptors within Old Sacramento, as they provide transient lodging for visitors to Sacramento. Noise-sensitive receptors within 150 feet of the railroad right-of-way for the proposed Old Sacramento–Sacramento Zoo route (proposed Train Line #1) are located on Darnel Way between Riverside Boulevard and Sutterville Road, and at Holy Spirit School. Noise-sensitive receptors within 150 feet of the railroad right-of-way between the zoo and the and the Pocket/Meadowview area are located in residential areas adjacent to the right of way. Train traffic in this area would occur only during track construction/upgrades and when trains from the proposed Train Line #2 would have to travel to Old Sacramento for servicing. Sensitive receptors along the proposed Pocket/Meadowview–Hood route (proposed Train Line #2) are located along the east side of SR 160 (Freeport Boulevard) in Freeport. There also are three homes south of the SR 160 railroad crossing at Cliff's Marina and a few residences in Hood. The nearest proposed receptors are approximately 50 feet from the railroad right-of-way along Darnel Way, adjacent to the Sacramento Zoo, and along SR 160 in Freeport. In addition to

human sensitive receptors, historic structures in Old Sacramento and the Central Shops would also be considered vibration-sensitive receptors because of the possibility of structural damage from exposure to excess vibration.

No airstrips exist within 2 miles of OSSHP and CSRM. Sacramento International Airport is located approximately 9 miles to the northwest. Sacramento Executive Airport is located adjacent to the planning area, along the excursion train line and approximately 1.5 miles south of the proposed Sacramento Zoo train station and 1.5 miles north of the proposed Pocket/Meadowview train station.

Although state-sponsored projects are not subject to City and Sacramento County (County) regulations, they typically attempt to adhere to local policies to the extent feasible. The City has established property-line noise standards of 55 (dBA) $L_{eq}(h)$ and 75 dBA L_{max} for daytime hours (7 a.m. to 10 p.m.) and 50 dBA $L_{eq}(h)$ and 70 dBA L_{max} for nighttime hours (10 p.m. to 7 a.m.). The City's 24-hour noise standards related to land use compatibility are 60 dBA community noise equivalent level (CNEL) for outdoor activity areas and 45 dBA CNEL for interior spaces of sensitive land uses. The City exempts noise from construction between the hours of 7 a.m. and 6 p.m., Monday through Saturday, and 9 a.m. to 6 p.m. on Sundays. The City requires that all feasible mufflers and sound dampening be implemented on construction equipment (City of Sacramento 2009, 2011).

The County has established property-line noise standards of 55 dBA $L_{eq}(h)$ and 75 dBA L_{max} for daytime hours (7 a.m. to 10 p.m.) and 50 dBA $L_{eq}(h)$ and 70 dBA L_{max} for nighttime hours (10 p.m. to 7 a.m.). The County's land use compatibility 24-hour noise standards are 60 dBA CNEL for outdoor activity areas of sensitive land uses. The County exempts noise from construction between the hours of 6 a.m. and 8 p.m. on weekdays and 7 a.m. to 8 p.m. on weekends (Sacramento County 1981, 1998).

REGULATORY SETTING

No federal, state, regional, or local plans, regulations, or laws apply to noise-related expansion of the General Plan. The Federal Transit Administration (FTA) has developed noise and vibration impact methodology and criteria for rail operations in the FTA *Transit Noise and Vibration Impact Assessment* (FTA 2006). These methodologies and criteria are used in this analysis to determine significance of rail operations associated with the General Plan.

SIGNIFICANCE CRITERIA

Implementing the General Plan would result in a significant impact related to noise if it would create:

- exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;

- a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

IMPACT ANALYSIS

Impact Noise-1: Short-Term Noise Levels Related to Project Construction.

Short-term noise from construction would result from implementation of the General Plan. Noise levels would likely vary over different parts of the planning area because of the different levels of activity and kinds of construction. Specific projects that would result in construction of new facilities would undergo additional environmental review before the projects were implemented. At that time, the level of noise generated by the specific activity would be determined based on the construction equipment required and the sensitive receptors present. Were subsequent environmental review to result in a determination that anticipated noise levels would exceed state standards or adversely affect sensitive receptors, then project-specific mitigation would be adopted and implemented.

Construction noise is exempt from local noise standards (city and county) as long as construction activities take place during exempted hours and have all manufacturer-recommended noise-control devices installed and functioning. These regulatory exemptions reflect acknowledgement by the local jurisdictions that construction noise is a necessary part of new development and does not create an unacceptable public nuisance when conducted within the least noise-sensitive hours of the day. However, if construction activities were to occur directly adjacent to noise-sensitive land uses or to occur during the more noise-sensitive hours (e.g., evening, nighttime, early morning), or if construction equipment were to not be properly equipped with noise control devices, General Plan-generated noise levels from construction sources could exceed the applicable standards and result in substantial temporary increase in the ambient noise environment at nearby noise-sensitive receptors. This impact would be **significant**.

Implementing mitigation measures at the program level that would apply across all project-level aspects of the General Plan is feasible. Implementing the following mitigation measure will ensure that construction noise generated during all phases of General Plan implementation is reduced to the extent feasible at the program level.

Mitigation Measure Noise-1: State Parks and its contractors will restrict construction activities that generate noise across property boundaries to the hours of 7 a.m. to 6 p.m., Monday through Saturday, and 9 a.m. to 6 p.m. on Sundays, for work taking place within the Sacramento city limits. Within the county, noise-generating construction activities will be restricted to the hours of 6 a.m. to 8 p.m. on weekdays and 7 a.m. to 8 p.m. on weekends. In addition, State Parks and its contractors will require that all construction equipment be properly maintained per manufacturers' specifications and fitted with the best available noise-

suppression devices (e.g., mufflers, silencers, wraps); and they will require that all impact tools be shrouded or shielded and all intake and exhaust ports on power equipment be muffled or shielded. Construction activities that generate noise across property lines will not be permitted on Sundays and federal, state, or city holidays.

Implementing Mitigation Measure Noise-1 would reduce program-level impacts from construction noise to a **less-than-significant** level. If additional project-level impacts were to be identified and concluded to be significant, specific mitigation measures will be required at that time under CEQA.

Impact Noise-2: Long-Term Noise Levels Related to Non-Rail Project Operations.

Potential sources of noise associated with future development or improvements within OSSHP and CSRM would include motor vehicle use, park administrative operations, maintenance activities, and outdoor events. Noise associated with these activities could include vehicle noise (e.g., tires, brakes, engine acceleration); HVAC system operations; trail maintenance equipment (e.g., hand and power tools); sound amplification of performances and events; and visitor-related noise (e.g., opening and closing of doors, people talking, yelling, music playing).

Future development and improvements would generate additional visitor trips to OSSHP, CSRM, and the site of the proposed Pocket/Meadowview Station. Subsequently, traffic volumes and the associated noise levels along roadways that access OSSHP and CSRM would increase. Based on the noise contours developed for the *Sacramento 2030 General Plan*, the General Plan area is located between the 60- and 65-dBA CNEL noise contour from I-5 (City of Sacramento 2009). Short-term noise measurements taken for this environmental document confirmed that noise levels in the project area are generally in the 60- to 65-dBA range (Table 5-2). The City defines a significant impact for traffic noise levels greater than 60 dBA CNEL as an increase of +2 dBA CNEL.

Long-term operation of the proposed project would result in an increase of 2,219 average daily trips (ADT) on the local roadway network and, consequently, an increase in noise levels from traffic sources along affected segments. To examine the traffic noise impacts, traffic noise levels associated with the project were calculated for roadway segments in the project study area using FHWA's Highway Noise Prediction Model (FHWA-RD-77-108) (FHWA 1978). Existing traffic volume data was obtained from the Noise Technical Background Report prepared for the 2009 City General Plan (City of Sacramento 2009). Traffic noise levels were modeled under existing and existing plus project conditions. Based on the modeling conducted, implementation of the proposed project would result in changes in traffic noise levels near OSSHP by +0.5 dBA L_{dn} , relative to noise levels without the project. This increase would be less than the +2 dBA significance threshold established by the City. Please refer to Appendix G for complete noise modeling results.

Additional traffic volumes and associated increased noise levels along roadways that access the site of the proposed Pocket/Meadowview excursion train station also could occur. Based on the noise contours developed for the *Sacramento 2030 General Plan*, the site of the proposed

Pocket/Meadowview Station is located between the 55- and 60-dBA CNEL noise contour from I-5 and surrounding roadways (City of Sacramento 2009). The City defines a significant impact for traffic noise levels greater than 55 dBA CNEL as an increase of +3 dBA CNEL. Traffic noise levels at the Pocket/Meadowview Station were modeled under existing and existing plus project conditions using the same methodology as for OSSHP. Based on the modeling conducted, implementing the proposed project would result in changes in traffic noise levels near the Pocket/Meadowview Station by +0.3 dBA L_{dn} , relative to noise levels without the project. This increase would be less than the +3 dBA significance threshold established by the City. Please refer to Appendix G for complete modeling results.

Beyond vehicle-related noise, operational noise related to maintenance, equipment operations, and visitors would occur mostly throughout OSSHP and CSRM, including the site of the proposed Pocket/Meadowview excursion train station. Noise emanating from these sites would be minimal and would occur mostly during less-sensitive daytime hours, when OSSHP and CSRM are open for day use (the proposed hours of operation are from 10 a.m. to 5 p.m.). Noise from mechanical equipment would be mitigated according to mitigation measures identified during specific project-level review.

Noise from maintenance and equipment operations would also occur during daylight hours, when employees are performing their duties. Thus, because noise-producing activities would be limited to daylight hours and restricted during quiet hours, sleep disturbance and human annoyance would be unlikely to occur.

Noise generated by site development, operation, and increased visitation also has the potential to adversely affect noise-sensitive wildlife species, such as nesting Swainson's hawks or other nesting raptors. General Plan Guideline NR-2 includes provisions for protection of sensitive wildlife during construction. Thus, noise effects on sensitive wildlife species resulting from implementation of the General Plan are expected to remain at less-than-significant levels.

Noise produced by non-rail-related long-term traffic and operational activities would be minimal, would be attenuated by existing traffic on I-5, and would occur mostly during less-sensitive daylight hours. This impact would be **less than significant**.

Impact Noise-3: Long-Term Noise Levels Related to Rail Operations.

In addition to the expansion of facilities in OSSHP, the General Plan also proposes expansion of rail operations for the CSRM. Train Route #1 would extend the existing excursion train route to the south to the Sacramento Zoo. Train Route #2 would extend from a small new station in the Pocket/Meadowview area to the town of Hood. Currently, six train trips occur on the exiting excursion train and trains run hourly between 11 a.m. and 5 p.m. on Saturdays and Sundays. The General Plan proposes four daily excursion train round trips from Old Sacramento to the Sacramento Zoo, and three daily train trips from the Pocket/Meadowview Station to Hood. As under existing conditions, trains would only operate on Saturdays and Sundays during daylight hours from April through October, with the existing Polar Express route operating in December. Train noise is composed primarily of wheel/track interaction, engine and brake noise, sounding

of the locomotive horn at at-grade intersections, and human-related noise at the additional train stations. Short-term (15-minute) noise measurements were taken at two separate locations along the existing alignment, with and without the excursion train, on September 25, 2011, between 11:30 a.m. and 3:30 p.m. The results of the noise measurements are shown in Table 5-3.

New and expanded train operations would expose new sensitive receptors to train noise in the area between and the area of the former Baths and the Sacramento Zoo and between the Pocket/Meadowview Station and Hood. Sensitive receptors in the area between the zoo and the Pocket Meadowview Station would be experience occasional train noise, when trains from Train Line #2 would need to travel to Old Sacramento for servicing and during upgrades/construction of tracks. As shown in Table 5-3, noise from train operations would be approximately 65 dBA L_{eq} and 85 dBA L_{max} (corrected from 70 feet) at 60 feet from the tracks. Based on a typical soft surface attenuation (e.g., normal dirt, grass, vegetation) between the train tracks and adjacent sensitive receptors, as well as on the noise monitoring conducted of the existing excursion trains, train noise could exceed City and County noise standards of 55 dBA L_{eq} and 75 dBA L_{max} within 150 feet of the train tracks and exceed ambient noise levels by more than 3 dBA.

Table 5-3: Noise Measurement Results

Measurement Type	Location #1 Marina ¹ Measurement #1 (with train)	Location #1 Marina ¹ Measurement #2 (no train)	Location #2 near Site of Former Riverside Baths ² Measurement #1 (with train)	Location #2 near Site of Former Riverside Baths ² Measurement #2 (no train)
L_{eq}	63.8	57.8	64.9	63.8
L_{max}	83.3	63.1	76.9	71.1

Notes: L_{eq} = equivalent noise level, L_{max} = maximum noise level
¹ Hard-surface measurement location (parking lot) was approximately 70 feet from the track.
² Soft-surface measurement location (grasses) was approximately 60 feet from the track; no barrier is situated between the measurement location and Interstate 5 on the opposite side of tracks.
 These short-term (15-minute) noise measurements were taken along the existing alignment on September 25, 2011, between 11:30 a.m. and 3:30 p.m.
 Source: Data provided by AECOM in 2011

Because train operations would occur only during the day and would have a maximum of eight 1-minute pass-bys on each route, train operations would have little to no effect on 24-hour CNEL noise levels, especially considering the proximity of traffic noise from I-5. Noise-sensitive receptors on the Old Sacramento–Sacramento Zoo route located within 150 feet of the rail line are located on Darnel Way, between Riverside Boulevard and Sutterville Road, and at Holy Spirit School. Noise sensitive receptors located south of the zoo and within 150 feet of the rail line are located in residential areas, primarily on the west side of SR 160 in Freeport. There also are three homes south of SR 160 and the train track crossing at Cliff's Marina. Some homes in Hood would also be located within 150 feet of the rail line.

In addition to regular train noise, horn blasts would be required at all public at-grade track/road crossings. The existing excursion train route has three at-grade crossings: at Capitol Mall, Broadway on the west side of I-5, and at Front Street at Miller Park. With the addition of Train Line #2, additional at-grade crossings would occur at Cliff's Marina (the SR 160 crossing), Hood Franklin Road, and River Road in Hood. Because of the need to service excursion line #2 from Old Sacramento, additional at-grade crossings may occur within the existing right-of-way between the zoo and the Meadowview area, including at Sutterville Road, South Land Park Drive, Seamas Avenue, and Florin, and Meadowview Roads. While these at grade crossings between the zoo and the Meadowview area would not be frequented by excursion trains, they would be passed by trains from excursion line #2 that would have to travel to Old Sacramento for servicing. They would also be used during construction/upgrades of the tracks to enable/continue the operation of excursion line #2.

Existing excursion train operations cross the Capitol Mall, Broadway, and Front Street at Miller Park. No sensitive receptors are adjacent to these locations and no changes to horn-sounding requirements would occur at these crossings. For new crossings at SR 160, Hood Franklin Road, and River Road in Hood (for excursion trains) and additional crossings that would be located between the zoo and the Meadowview area, the Federal Railroad Administration regulates locomotive horns under CFR Parts 222 and 229. CFR Part 222 states that locomotive horns must be sounded by the lead locomotive of any passenger or freight train traveling more than 15 miles per hour (mph) within 15–20 seconds of crossing any public roadway. A train traveling more than 60 mph may not sound its horn until it is within 0.25 mile of the approaching crossing. Trains are not required to sound their horn if there is no at-grade crossing (CFR 2006). CFR Part 229 states that lead locomotive horns shall be equipped with a horn that produces a minimum of 96 dBA L_{max} and a maximum of 110 dBA L_{max} at 100 feet (CFR 2006). It is also typical for excursion trains to sound their horn at the commencement of travel in a particular direction. Therefore, noise from horn soundings could exceed City and County maximum noise level standards of 75 dBA L_{max} .

Expanded excursion train operations and required services in support of excursion line #2 resulting from implementation of the General Plan would expose sensitive receptors to noise levels in excess of applicable (L_{max}) standards from both train pass-bys and from horn blasts and a substantial increase in ambient noise levels (+3 dBA) during train operating hours. This impact would be **significant**.

Mitigation Measure Noise-2: State Parks and its contractors will restrict train speeds to less than 15 mph within 1 mile of any new at-grade crossing south of the zoo required for servicing or operating excursion line #2. State Parks and its contractors will require that train horns and whistles not be sounded at the commencement or conclusion of travel at the proposed Sacramento Zoo stop.

Implementing Mitigation Measure Noise-2 would reduce noise impacts from train operational noise, but the potential for horn blasts at public at-grade crossing affected by the proposed expansion of the excursion train line would remain. Possible mitigation to reduce noise levels

from horn blasts and train pass-bys in the affected areas could include barriers, and relocation of tracks. However, constructing tall barriers, and relocating tracks would negate the purpose of the recreational train routes. Therefore, no feasible mitigation would reduce train pass-by and horn blast noise to the extent required to reduce this impact to a less-than-significant level. This impact would be **significant and unavoidable**.

Impact Noise-4: Incompatible Land Uses.

As stated above in Impact Noise-2, noise from other sources associated with implementation of the General Plan would not exceed applicable standards or cause a substantial increase in the ambient noise environment. As stated above in Impact Noise-3, adjacent sensitive land uses along new and expanded train routes and needed service routes could be exposed to noise levels in excess of applicable standards and to substantial increases in the ambient noise environment. Noise from adjoining parcels would be unlikely to intrude on activities occurring at OSSHP or CSR, as they would be residential or urban in nature and thus similar to that generated on-site. If any specific noise conflicts between OSSHP, CSR, and adjacent land uses were to be identified under project-level analysis, specific mitigation measures would be required at that time under CEQA. However, because the General Plan would introduce a new noise source in excess of applicable impact criteria, and because no feasible mitigation measures exist to reduce train pass-by and horn blast noise levels to less-than-significant levels, this impact would be **significant and unavoidable**.

Impact Noise-5: Short-Term Sources of Vibration.

On-site construction activities associated with implementation of the General Plan could result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. Using the FTA-recommended procedure (FTA 2006:12-11 through 12-13) for applying a propagation adjustment to these reference levels, predicted worst-case vibration levels would exceed 80 vibration decibels (VdB) (FTA's maximum-acceptable vibration standard with respect to human annoyance for sensitive uses) within 60 feet of vibration-sensitive receptors. Regarding sensitive structures, Caltrans recommends 0.08 inch-per-second peak particle velocity (in/sec PPV) for protection of historical buildings against possible architectural damage from construction operations (Caltrans 2004:10). Based on Caltrans measurements of heavy construction operations of 0.10 in/sec PPV at 10 feet, construction equipment could exceed 0.08 in/sec PPV within 12 feet of sensitive structures. It is not anticipated that sensitive receptors would be located within 60 feet of active construction projects. However, historic structures are located throughout Old Sacramento and at the Central Shops and could be exposed to vibration in excess of 0.08 in/sec PPV. Thus, this impact would be **significant**.

Implementing mitigation measures at the program level that would apply across all project-level aspects of the program is feasible. The following mitigation measure will ensure that construction vibration generated during all phases of the OSSHP program would be reduced to the extent feasible at the program level.

Mitigation Measure Noise-5: State Parks and its contractors will survey any historic structures located within 50 feet of construction activities, before construction operations, to determine whether possible damage could occur. If necessary, State Parks and its contractors will provide an on-site monitor to identify any damage to the structure and potentially halt construction activities to minimize damage. Any damage that is observed as a direct result of construction would be repaired by State Parks and its contractors to restore the structure to preconstruction conditions.

Implementing Mitigation Measure Noise-5 would reduce program-level impacts from construction vibration to a **less-than-significant** level. If additional project-level impacts were to be identified and concluded to be significant, specific mitigation measures would be required at that time under CEQA.

Impact Noise-6: Long-Term Sources of Vibration.

Implementing the General Plan is not expected to involve any major sources of vibration within the project area. Expanded train operations would generate vibration along the Old Sacramento–Sacramento Zoo and Pocket/Meadowview–Hood routes.

To evaluate vibration impacts at residential receptors from train operations, the General Vibration Assessment methods detailed in the FTA *Transit Noise and Vibration Impact Assessment* manual (FTA Manual) were applied to the routes proposed under the General Plan (FTA 2006:Chapter 10). The nearest proposed receptors would be approximately 50 feet from the railroad right-of-way along Darnel Way, adjacent to the Sacramento Zoo, and along SR 160 in Freeport. Because the excursion train would use minimal cars and have a maximum of eight trips per day, baseline vibration levels were assumed to be closer to light-rail vibration levels than to full-freight rail vibration levels. Applying the FTA General Vibration Assessment methodology, it was calculated that impacts on sensitive receptors from rail sources would be approximately 73 VdB and 0.02 in/sec PPV at 50 feet (FTA 2006:10-3, 10-7). This would be less than the recommended 80 VdB and 0.2 in/sec PPV for impacts on sensitive receptors. (See modeling results in Appendix G for vibration calculations.) Therefore, groundborne vibration levels attributable to rail sources would not exceed the threshold of significance for exposing sensitive receptors to vibration and groundborne noise. This impact would be **less than significant**.

5.6.10 PUBLIC SERVICES

INTRODUCTION

This section analyzes the impacts on public services that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

Refer to Section 2.4.2, “Public Safety,” in Chapter 2 of this General Plan for a description of existing conditions related to public services.

The Sacramento Metropolitan Fire District provides fire and emergency services to Old Sacramento OSSHP, and CSRМ. Two fire protection agencies, Cosumnes Community Services District and Courtland Fire Protection District, provide services to the area along the excursion train line located south of the city of Sacramento.

The area south of the Sacramento city limits along the excursion train line is in the Sacramento County Sheriff’s Department’s South Patrol District. Sheriff patrols deploy out of the Bond Road Facility in Elk Grove and serve the communities of Wilton, Walnut Grove, Willow Berm, Brannan Island, Sherman Island, Ryde, Galt, Hood, Freeport, Franklin, Courtland, and Sloughouse (Sacramento County 2009. Background to the 1993 General Plan as Amended).

REGULATORY SETTING

No federal, state, regional, or local plans, regulations, or laws related to public services apply to the proposed General Plan.

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact related to public services if it would:

- cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services, including police or fire services or other public facilities.

IMPACT ANALYSIS

Impact PS-1: Adverse Effects on Police and Fire Services.

It is not anticipated that implementation of the General Plan would require additional facilities for police or fire protection services for OSSHP and CSRМ. Public safety along the proposed excursion train route between the Pocket/Meadowview area and the town of Hood would be provided by the Sacramento County Sheriff’s Department and by fire protection agencies in whose jurisdiction the line would be located (Cosumnes Community Services District and Courtland Fire District). Guideline SAFE-9 requires coordination with local fire protection districts to ensure that safety measures and practices are included in the management and operations plan for OSSHP and CSRМ. This impact would be **less than significant**.

5.6.11 TRANSPORTATION AND TRAFFIC (TRAN)

INTRODUCTION

This section analyzes transportation and circulation impacts that would result from implementation of the General Plan. The following information is summarized from the Transportation Study for the Old Sacramento State Historic Park and California State Railroad Museum General Plan (December 2011). The Transportation Study is provided in Appendix A of this document.

ENVIRONMENTAL SETTING

PROJECT AREA TRANSPORTATION FACILITIES

Old Sacramento includes a well-connected gridded system of streets that provides access to businesses and attractions. Streets within Old Sacramento have two bidirectional travel lanes, a mixture of parallel and angled on-street parking, and are designed for vehicles to operate at low travel speeds. Front Street is paved with cobblestones between Neasham Circle and J Street, which results in lower vehicle travel speeds.

Streets in Old Sacramento are lined with sidewalks on both sides, most of which are approximately 15 feet wide and constructed of wooden planks raised above the roadway. Sidewalk ramps have recently been upgraded to comply with the Americans with Disabilities Act. In addition, an approximately thirty-foot-wide boardwalk stretches along the western edge of OSSHP between the Sacramento River and the tracks for the California State Railroad Museum's excursion train. The boardwalk extends to the northwest corner of OSSHP where it connects with the American River Bike Trail, a major regional bicycle facility that runs adjacent to the river for 33 miles from Old Sacramento to Folsom Lake.

Additional Class I off-street bicycle facilities, currently serving the area, include a trail along the eastern bank of the Sacramento River south of Capitol Mall, a connection to Old Sacramento across the Tower Bridge, and a connection to Downtown Plaza via an undercrossing of I-5 and 3rd Street.

REGIONAL TRANSPORTATION FACILITIES

A sidewalk-lined system of gridded streets also exists on the east side of I-5 in Downtown Sacramento. However, unlike within Old Sacramento, streets on the east side of the freeway have three to five travel lanes designed to handle large volumes of regional commuter traffic, and many of the major roadways in Downtown are one-way facilities.

The City's Amtrak station, one of the ten busiest in the nation, is located only a few hundred feet to the northeast of Old Sacramento on the opposite side of I-5. Two long-distance Amtrak routes, the Coast Starlight (Seattle-Portland-Sacramento-Log Angeles) and the California Zephyr (Emeryville-Sacramento-Denver-Chicago) serve the station in addition to two Amtrak California regional routes, the Capitol Corridor (San Jose-Sacramento-Auburn) and the San Joaquin

(Sacramento-Bakersfield). Regional Transit's (RT) Gold Line also connects the Amtrak station to the Sacramento region's light rail transit network.

Regional Transit provides a majority of the public transit service (light rail and bus) within the study area. However, bus transit service connecting Sacramento to the surrounding region is also provided by Yolobus, Folsom Stage Lines, Yuba-Sutter Transit, Roseville Transit, El Dorado Transit, Elk Grove Transit (e-Trans), and the San Joaquin Regional Transit District.

Access to the regional freeway system from Old Sacramento is provided via on-ramps to I-5 at I Street and L Street, and off-ramps at J Street. Interstate 5 extends the length of California and into Oregon and Washington and serves as a vital link between the primarily residential neighborhoods to the north and south of Downtown and the Central Business District. Interstate 5 also provides easy access from Old Sacramento to the region's two major east-west freeways, Interstate 80 and US Highway 50 (US-50). Adjacent to Old Sacramento, I-5 has four northbound and four southbound travel lanes. South of the I Street merge, southbound I-5 gains a fifth lane that serves as an auxiliary lane between the I Street on-ramp and the US-50/Business 80 off-ramp.

ROADWAY NETWORK

The characteristics of several key roadway facilities in the vicinity of OSSHP and CSRM are described in greater detail below:

- **Capitol Mall** is a four-lane east-west divided roadway within the study area. Capitol Mall originates on the west at the Tower Bridge, and is a continuation Tower Bridge Gateway, a roadway that connects to Business Route 80 in West Sacramento. Capitol Mall terminates on the east at 10th Street at the State Capital. A grass median, approximately 40 feet wide, separates eastbound and westbound traffic within the study area.
- **I Street** is a three to four-lane one-way (westbound) roadway within the study area. I Street originates on the east at 28th Street and terminates on the west at Front Street in Old Sacramento. I Street serves as one of the primary gateways to OSSHP, and also has on-ramps to northbound and southbound I-5. Motor vehicle traffic is not permitted on I Street between Front Street and Firehouse Alley.
- **J Street** is a three- to four-lane one-way (eastbound) roadway within the study area and forms a couplet with I Street through Downtown Sacramento. J Street originates on the west at I-5, fed by off-ramps from northbound and southbound I-5. J Street continues through Downtown and Midtown Sacramento, and eventually transitions into Fair Oaks Boulevard east of the American River. A separate discontinuous segment of J Street exists within Old Sacramento between the Sacramento River and I-5.
- **3rd Street** varies from a three-lane divided roadway to a three-lane one-way (southbound) roadway within the study area. Third Street originates on the north at I Street and terminates on the south at Broadway. The western side of 3rd Street between I Street and O Street lacks sidewalks.

- **5th Street** is primarily a three-lane one-way (northbound) roadway within the planning area. Fifth Street originates on the south at 4th Avenue and terminates on the north at H Street. Fifth Street has two-way travel between J Street and L Street as it passes under the Downtown Plaza mall. Future plans call for the extension of 5th Street northward to North B Street as part of the Railyards project.
- **Front Street** is a two-lane north-sound roadway that runs along the eastern bank of the Sacramento River. Front Street is discontinuous on either side Capitol Mall, with a northern segment that travels through Old Sacramento connecting Neasham Circle to I Street, and a southern segment that runs from Miller Park before transitioning into 2nd Street just south of Capitol Mall. The northern segment of Front Street within Old Sacramento is paved with cobblestones, and north of J Street vehicular access is prohibited.
- **Neasham Circle** is a two-lane local roadway that provides access to Old Sacramento via a signalized intersection with Capitol Mall. Neasham Circle connects Capitol Mall to 2nd Street within Old Sacramento.
- **I Street Bridge:** The I Street Bridge has one travel lane in each direction and largely serves as a local connection between West Sacramento and Downtown Sacramento. It has the northernmost location of the three bridges connecting the two cities. Between the I Street crossing on the east side of West Sacramento, and the Bryte Bend Bridge (which carries Interstate 80 over the Sacramento River) in the northwestern corner of West Sacramento, no other river crossings exist. The I Street Bridge carries approximately 12,700 vehicles per day. In addition to motor vehicles, the I Street Bridge also accommodates pedestrians and bicyclists. However, sidewalks on the bridge are narrow and are directly adjacent to the vehicle travel lanes, and no bicycle lanes are provided. No transit routes currently make use of the I Street Bridge.
- **Tower Bridge:** The Tower Bridge is located less than a half a mile south of the I Street Bridge on the Sacramento River. This crossing has four motor vehicle travel lanes (two in each direction) in addition to striped shoulders which are used by bicyclists. Bicyclists may also share the Tower Bridge's wide protected sidewalks with pedestrians. This bridge carries about 20 percent more traffic than the I Street Bridge, handling approximately 15,600 vehicles per day on a weekday. Numerous transit routes use the Tower Bridge to travel between West Sacramento and Downtown Sacramento.

PROJECT AREA ACCESS

Despite its proximity to several of the region's major transportation investments, accessing Old Sacramento represents a challenge, especially during high-visitation events. Old Sacramento's location between the Sacramento River, Union Pacific Railroad tracks, and I-5 results in a limited number of access points into and out of OSSHP. As shown in Table 5-4, when not considering boat access from the Sacramento River, Old Sacramento has only five access points. Two of these five access points serve bicycles and pedestrians only.

While there are three access points open to motor vehicle traffic, the current configuration of the Front Street gateway is somewhat circuitous because Front Street is depressed below grade at Capitol Mall. Rather than being able to turn directly onto Front Street from Capitol Mall, visitors to OSSHP must travel an additional half mile to connect to Front Street via 3rd Street and O Street in order to use this gateway.

Table 5-4: Access Points to Old Sacramento

Access Point	Motor Vehicle Access	Bicycle/Pedestrian Access
1. Neasham Circle	✓	✓
2. Front Street	✓	✓
3. K Street		✓
4. I Street	✓	✓
5. American River Bike Trail		✓

This configuration makes this gateway less attractive to all modes of travel, but especially to bicyclists and pedestrians who are more affected by increased travel distance. In addition, the existing sidewalks on the segment of Front Street beneath Capitol Mall are narrow and have no buffer between the sidewalk and adjoining travel lanes (see image to right). The design of these sidewalks, combined with the circuitous nature of this access, limit the gateway's effectiveness as a pedestrian entry to Old Sacramento.

Recent modifications to 3rd Street on the east side of I-5 have added a northbound travel lane between I Street and J Street. Previously, this segment of roadway was one-way southbound. This previous configuration required motorists exiting I-5 at J Street to travel two blocks out of their way to access the I Street gateway into Old Sacramento. With the addition of the northbound lane on 3rd Street, motorists exiting I-5 and traveling to the I Street access point travel 2,000 fewer feet than under the previous configuration.

The I Street access point to Old Sacramento also serves as the pedestrian connection to Sacramento's railroad depot, linking visitors to Amtrak, RT light rail, and Amtrak California. Although the station is only a few hundred feet from the northeastern corner of Old Sacramento, the existing connection requires pedestrians and bicyclists to navigate their way through a dimly lit parking lot located beneath a freeway interchange. The route to the Amtrak station is well marked, but the connection currently lacks inviting pedestrian/bicycle facilities.

Parking

Within one-quarter of a mile from Old Sacramento, there are approximately 11,000 off-street parking spaces. In addition, a mixture of parallel and angled on-street parking lines most streets

within the historic district. On-street parking spaces are metered, with meter enforcement occurring seven days a week, while off-street parking decks typically charge an hourly rate.

Although numerous parking opportunities exist within a close walk of Old Sacramento's attractions, many visitors make use of two parking decks owned by the City of Sacramento. These two public decks, one located at each of the two access points to Old Sacramento most heavily utilized by motor vehicle traffic, offer a combined 1,329 spaces (451 spaces in the deck located off of Neasham Circle and 878 spaces located in the deck accessed off of I Street).

In addition to these City-owned decks, four privately owned decks at Downtown Plaza combine to offer nearly 4,000 spaces. These spaces are located on the opposite side of I-5 from Old Sacramento, and are connected to Old Sacramento via the K Street pedestrian/bicycle access point.

Rail Crossing

An at-grade Sacramento Southern Railroad crossing of Capitol Mall traverses the western leg of Capitol Mall/Neasham Circle study intersection. According to data provided by the Sacramento Southern Railroad/California State Railroad Museum, 1,306 train movements occurred in 2010 resulting in an average of just under four trains per day. Higher levels of train activity occur on weekends versus weekdays due to excursion train operations from OSSHP. This crossing is currently equipped with traffic signal preemption, warning signage, crossing arms, warning bells, and flashing lights.

Water Transportation

The Sacramento River forms the western border of Old Sacramento. At the height of the Gold Rush, the section of river adjacent to Old Sacramento served as the City's central transportation artery. Although the river no longer serves this function, the Sacramento River is still used for transport, and a significant number of boat trips pass by OSSHP on a daily basis. Recreational traffic comprises the majority of boat trips on the segment of river adjacent to Old Sacramento. However, commercial river cruises operated by Hornblower Cruises & Events also utilize the river and operate from a dock located within Old Sacramento. In addition to the docks within Old Sacramento, two public boat launches are located within one mile of OSSHP:

- **The Broderick Boat Ramp** is located approximately one third of a mile upriver from Old Sacramento on the western bank of the Sacramento River. This public facility is operated by the City of West Sacramento, and has amenities including a picnic area and restrooms.
- **The Discovery Park Boat Ramp** is located approximately one mile upriver from Old Sacramento on the eastern bank of the Sacramento River. This public facility is operated by the Sacramento County Regional Parks Department.

Study Intersections

Study intersections were selected based on the expected travel characteristics associated with the project (i.e., project location and amount of project trips), as well as the susceptibility of nearby intersections to increased traffic due to implementation of the project. The following six intersections were studied as part of the transportation analysis:

1. I Street/3rd Street
2. I Street/5th Street
3. J Street/3rd Street
4. J Street/5th Street
5. Capitol Mall/Neasham Circle
6. Street/Front Street

Data Collection

To provide a baseline for the transportation analysis, traffic counts were collected at the six study intersections identified above. The counts occurred on Tuesday, September 21, 2010 during the a.m. (7:00 a.m. – 9:00 a.m.) and p.m. peak periods (4:00 p.m. – 6:00 p.m.) of the roadway system surrounding Old Sacramento. During the counts, weather conditions were generally dry and local schools were in full session. Pedestrians and bicyclists were also counted at each of the study intersections.

Each intersection's peak hour within the peak period was used for the analysis. For the majority of study intersections, the counts indicate that the a.m. peak hour is between 8:00 a.m. and 9:00 a.m. and the p.m. peak hour is between 4:30 p.m. and 5:30 p.m.

During the collection of the traffic counts, freeway off-ramp queues from northbound and southbound I-5 to J Street were also observed.

REGULATORY SETTING

FEDERAL

No federal laws related to transportation and traffic apply to the proposed General Plan.

STATE

The California Department of Transportation (Caltrans) is the state agency responsible for highway, bridge, and rail transportation planning, construction, and maintenance. Caltrans considers it an impact if the addition of project trips causes a queue on the off-ramp approach to a ramp terminal intersection to extend beyond its storage area and onto the freeway mainline.

LOCAL

Sacramento 2030 General Plan

Policy M 1.2.2 in the Mobility Element of the Sacramento 2030 General Plan sets forth definitions for what is considered an acceptable level of service. The following excerpt from the level of service policy is relevant to implementation of the General Plan.

- M 1.2.2 The City shall allow for flexible Level of Service (LOS) standards, which will permit increased densities and mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.
- a. Core Area Level of Service Exemption—LOS F conditions are acceptable during peak hours in the Core Area bounded by C Street, the Sacramento River, 30th Street, and X Street. If a Traffic Study is prepared and identifies a LOS impact that would otherwise be considered significant to a roadway or intersection that is in the Core Area as described above, the project would not be required in that particular instance to widen roadways in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to road segments in order to conform to the General Plan. This exemption does not affect the implementation of previously approved roadway and intersection improvements identified for the Railyards or River District planning areas.

Therefore, all six study intersections are located within the Core Area defined in Policy M 1.2.2 and are governed by M 1.2.2 (a). LOS F is acceptable at these locations during peak hours, provided that the project provides improvements to other parts of the citywide transportation system within the project site vicinity (or within the area affected by the project's vehicular traffic impacts) to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. Road widening or other improvements to road segments are not required.

SIGNIFICANCE CRITERIA

In accordance with CEQA, the lead agency evaluates the effects of a proposed project to determine if they could result in significant adverse impacts on the environment. The standards of significance in this analysis are based upon the current practices of the City of Sacramento, documented within the Sacramento 2030 General Plan (2009) and Traffic Impact Analysis Guidelines (1996). Under CEQA, the City of Sacramento is a local responsible agency. In addition to the City standards, as stated above, Caltrans considers it an impact if the addition of project trips causes a queue on the off-ramp approach to a ramp terminal intersection to extend beyond its storage area and onto the freeway mainline. For the purposes of this analysis, an impact is considered significant if implementation of the project would result in any of the following:

BICYCLE FACILITIES

Impacts to bicycle facilities are considered significant if the proposed project would:

- Adversely affect existing or planned bicycle facilities; or
- Fail to adequately provide for access by bicycle

PEDESTRIAN CIRCULATION

Impacts to pedestrian circulation are considered significant if the proposed project would:

- Adversely affect existing or planned pedestrian facilities; or
- Fail to adequately provide for access by pedestrians

TRANSIT FACILITIES

Impacts to the transit system are considered significant if the proposed project would:

- Adversely affect public transit operations; or
- Fail to adequately provide access to transit

FREEWAY FACILITY RAMPS

Caltrans considers the following to be a significant impact:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway (i.e., exceed the available storage capacity)

INTERSECTIONS

A significant traffic impact occurs when:

- The traffic generated by the project degrades level of service (LOS) from an acceptable LOS (without the project) to an unacceptable LOS (with the project);

- The level of service (without project) is unacceptable and project generated traffic increases the average vehicle delay by 5 seconds or more

IMPACT ANALYSIS

The Transportation Study analyzed potential impacts on transportation systems from implementation of the General Plan under existing conditions and under year 2035 conditions (Cumulative plus Project). The Transportation Study, which includes a detailed description of methodology and assumptions used in the analysis, is provided in Appendix A. The Transportation Study came to the following conclusions regarding the project's potential impacts under Cumulative plus Project Conditions.

Impact TRAN-1: Adversely affect existing or planned bicycle or pedestrian facilities or fail to adequately provide for access by bicycle or pedestrians.

The General Plan calls for improvements to the existing bicycle trail along the Sacramento River and recommends several alternative bicycle/pedestrian access routes through Old Sacramento that improve access connections along the river and to destinations in Downtown Sacramento, as shown in Exhibit B-1, "Proposed Bike Alternative Concepts through Old Sacramento," in Appendix B. Three potential bikeway routes are proposed in Exhibit B-1:

- Alternative A proposes continuing and connecting the existing segments of the Sacramento River Bike Trail between Old Sacramento, via two routes: (1) a river recreation route that extends the existing bike trail (along the west side of the excursion train line) from where it currently stops near J Street, to K Street, crosses the excursion train line at K Street, travels south on the east side of the excursion train line to Capitol Mall, and then, crosses back to the west side of the excursion train line to reconnect with the existing Sacramento River Bike Trail; (2) a commute route through Old Sacramento that continues the existing Sacramento River Bike Trail near J Street to K Street, crosses the excursion train line at K Street, continues east to 2nd Street, then travels south along 2nd Street-Neasham Circle, where it reconnects with the Sacramento River Bike Trail.
- Alternative B proposes an alternative bike connection between the Railyard site, Old Sacramento, and Downtown destinations. Accessed by the Sacramento River Bike Trail at a point north of the I Street Bridge through the Railyards site (alignment to be coordinated with development of future roadway and bicycle improvements in the Railyards), the route from the bike trail would travel east through the Railyards and connect to the future West tunnel that will provide bicycle and pedestrian access between the Railroad Technology Museum and Old Sacramento.
- Alternative C proposes an alternative to the informal bicycle crossing of the railroad tracks on I Street. This route would connect with the Sacramento River Bike Trail at a point just north of the turntable next to the Railroad History Museum and continue east along the realigned Capital Corridor tracks (specific alignment to be coordinated with the City).

The current bicycle/pedestrian crossing of the Sacramento Southern Railroad tracks at I Street would be abandoned as a physical crossing, and bicyclists/pedestrians would be rerouted to other safer bicycle routes. The existing crossing at I Street requires bicyclists to cross multiple train tracks spaced out over an area approximately 85 feet in length and places cyclists on a one block long unpaved segment of I Street. Abandonment of this crossing is not considered an adverse impact to the existing bicycle facility. New clearly marked pedestrian crossings over the existing excursion train tracks and boardwalk area would be provided to improve safety for bicyclists and pedestrians while also assisting mobility-impaired visitors in reaching the waterfront. Proposed bike routes, alignments, and improvements to surface, shoulders, and installation of signage in Old Sacramento or in the planning area will require coordination with the City and other relevant jurisdictions.

Implementation of the General Plan would improve existing pedestrian and bicycle infrastructure and provide additional signage and amenities for bicyclists and pedestrians within OSSHP and CSRM. The General Plan would provide for adequate access by pedestrians and bicyclists, and would not adversely affect any existing or planned pedestrian or bicycle facilities. Therefore, project impacts to bicycle and pedestrian circulation are considered **less than significant**.

Impact TRAN-2: Adversely Affect Public Transit Operations or Fail to Adequately Provide Access to Transit. No public transit routes currently operate within Old Sacramento. Implementation of the General Plan would provide additional train service via the expanded excursion train line to the Sacramento Zoo, would provide a horse-drawn streetcar service to assist in the circulation of visitors within Old Sacramento, and would allow for the implementation of water taxi service between OSSHP and other nearby destinations on the Sacramento River. In addition, the implementation of the General Plan would improve wayfinding, allowing transit riders to and from the area to more easily reach their destinations. Implementation of the General Plan would not adversely affect public transit operations. Therefore, project impacts to transit are considered **less than significant**.

Impact TRAN-3: Result in off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway (i.e., exceed the available storage capacity). Access to the regional freeway system from Old Sacramento is provided via on-ramps to I-5 at I Street and L Street, and northbound and southbound off-ramps at J Street. As shown in Table 5-4, all study freeway off-ramps are within their storage areas during the AM and PM peak hours.

As shown in Table 5-5, the addition of proposed project trips would not result in freeway off-ramp vehicle queues exceeding the available storage at the two I-5 off-ramps to J Street.

As shown in Table 5-6, the addition of proposed project trips under Cumulative Plus Project conditions would not result in freeway off-ramp vehicle queues exceeding the available storage at the two I-5 off-ramps to J Street.

Table 5-5: Off-Ramp Queuing – Existing Plus Project Conditions

Off-Ramp	Storage Length	Peak Hour	Existing Queue	Existing Plus Project Queue
I-5 Northbound – Off-ramp to J Street	1,025 feet	AM	975 feet	980 feet
		PM	875 feet	885 feet
I-5 Southbound – Off-ramp to J Street	1,475 feet	AM	550 feet	550 feet
		PM	250 feet	255 feet

Source: Fehr & Peers, 2011.

Table 5-6: Off-Ramp Queuing – Cumulative Plus Project Conditions

Off-Ramp	Storage Length	Peak Hour	Cumulative No Project Queue	Cumulative Plus Project Queue
I-5 Northbound – Off-ramp to J Street	1,025 feet	AM	985 feet	990 feet
		PM	885 feet	890 feet
I-5 Southbound – Off-ramp to J Street	1,475 feet	AM	615 feet	615 feet
		PM	400 feet	400 feet

Source: Fehr & Peers, 2011.

In summary, proposed project trips under Existing Plus Project and Cumulative Plus Project conditions would not result in freeway off-ramp vehicle queues exceeding the available storage. Therefore, General Plan-related impacts to freeway facility ramps are considered **less than significant**.

Degrade the Level of Service (LOS) from an Acceptable LOS (Without the Project) to an Unacceptable LOS (With the Project); or, where the LOS (without project) is Unacceptable, Increase the Average Vehicle Delay by 5 Seconds or More. Based on the Transportation Study, with the addition of the traffic associated with the General Plan, all study intersections would continue to operate at LOS E or better and would experience no degradation in level of service from existing conditions. Although the J Street/3rd Street intersection operates at LOS F under Cumulative Plus Project conditions, the addition of project traffic does not increase overall intersection delay by five or more seconds from Cumulative No Project conditions. Therefore, according to the City of Sacramento’s significance criteria, the two-second increase in the level of delay at this location does not constitute a project impact. Therefore, General Plan-related impacts to study intersections are considered **less than significant**.

5.6.12 UTILITIES AND SERVICE SYSTEMS

INTRODUCTION

This section analyzes impacts on utilities and service systems that would result from implementing the General Plan.

ENVIRONMENTAL SETTING

OSSHP and CSRM are served by City municipal utilities. The City currently provides municipal water and wastewater collection services to OSSHP and CSRM. Wastewater is treated at the Sacramento Regional County Sanitation District's wastewater treatment plant.

REGULATORY SETTING

No federal, state, regional, or local plans, regulations, or laws related to utilities and service systems apply to the proposed General Plan.

SIGNIFICANCE CRITERIA

Implementing the General Plan would have a significant impact related to utilities and service systems if it would:

- exceed wastewater treatment requirements of the Central Valley Regional Water Quality Control Board;
- require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements;
- result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- not comply with federal, state, and local statutes and regulations related to solid waste.

IMPACT ANALYSIS

Impact Util-1: Increase Demand on Utilities and Service Systems.

OSSHP and Old Sacramento are served by electricity, natural gas, water supply, wastewater/sewer conveyance, and storm drainage facilities. Expanding OSSHP facilities may require upgrades and expansion of some services. The General Plan's facilities and utilities guidelines include Guideline UTIL-1, which requires that capacity of existing utility systems and future demand be determined and improvements made in coordination with the City and service providers. In addition, Guideline FAC-2 requires coordination with the City to ensure

adequate provision of public amenities (such as restrooms, water fountains, shade, and seating); and Guideline FAC-8 requires installation of drinking fountains near restrooms and at important gathering areas. Expanding the excursion train service to include the expanded Train Line #1 and the new Train Line #2 would require extending services (water, sewer and electricity) to serve boarding facilities at Pocket/Meadowview and Hood. Guideline FAC-10 requires that State Parks ensure that adequate public amenities (such as restrooms, drinking fountains, seating and shade) are provided at excursion train boarding and waiting areas. With implementation of these General Plan guidelines, this impact would be **less than significant**.

5.7 OTHER CEQA CONSIDERATIONS

5.7.1 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

New train operations would expose some new sensitive receptors to train noise in the areas between Baths and the Sacramento Zoo, between the Zoo and the Pocket/Meadowview Station (service and construction trains only), and between the Pocket/Meadowview Station and Hood. These new and expanded train operations resulting from implementation of the General Plan would expose sensitive receptors to noise levels in excess of applicable (Lmax) standards from both train pass-bys and from horn blasts and a substantial increase in ambient noise levels (+3 dBA) during train operating hours. Mitigation measures are available that would reduce program-level noise impacts from train pass-bys to some extent. However, mitigation to completely avoid noise levels from train pass-bys and from horn blasts associated with the expanded excursion train service or reduce them to less-than-significant would be infeasible. Therefore, these impacts would remain significant and unavoidable.

5.7.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

No significant irreversible changes to the physical environment are anticipated as a result of implementing the General Plan. Proposed development within OSSHP, consisting of a riverfront promenade and viewing stations, docks, bike trail, interpretive exhibits, reconstructed commercial buildings and interpretive displays may be considered long-term commitment of resources; however, the environmental changes associated with these facilities are not considered significant. Further, the commitment of resources necessary to construct the proposed facilities would enhance already-existing facilities in OSSHP and CSRMP where substantial resources have been previously committed. Implementing the General Plan would allow State Parks to make better use of the existing State Park by offering more programs and increasing visitation. Therefore the irreversible environmental changes in OSSHP and CSRMP are not considered significant. Reconstruction of the rail line to serve the excursion train would take place on existing right of way. Reversal of environmental change associated with the excursion train could be accomplished through discontinuation of operations on the rail line. Therefore, no significant irreversible environmental changes would occur as a result of expanded excursion train service.

5.7.3 GROWTH-INDUCING IMPACTS

State CEQA Guidelines Section 15126.2(d) requires that an EIR evaluate the growth-inducing impacts of a proposed project. Specifically, an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth inducement itself is not an environmental effect, but may lead to environmental effects. Such environmental effects may include increased demand on other community and public services and infrastructure, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or wildlife habitats, or conversion of agricultural and open space land to urban uses.

Implementing the proposed General Plan would not foster additional population growth, or the construction of new housing. Economic growth would primarily be limited to the OSSHP, CSRM, and adjacent areas of downtown Sacramento as a result of increased visitors numbers and tourism. These areas are already urbanized, and economic growth would be in the form of an increase in patronage at nearby businesses (restaurants and hotels). Some increase in the demand for labor may result from increased economic activity, however, the demand would likely be met by the existing local population and housing market. Therefore, implementation of the General Plan would not result in growth inducing impacts.

5.7.4 CUMULATIVE IMPACTS

This EIR provides an analysis of cumulative impacts of the proposed General Plan, as required in State CEQA Guidelines Section 15130. Cumulative impacts are defined in State CEQA Guidelines Section 15355 as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time” (State CEQA Guidelines Section 15355[b]). By requiring an evaluation of cumulative impacts, CEQA attempts to ensure that large-scale environmental impacts will not be ignored.

RELEVANT PLANS AND PROPOSALS

Relevant land use plans and development proposals in the vicinity of the planning area that contribute to cumulative impacts are described below.

I-5 RIVERFRONT RECONNECTION PROJECT (BRIDGING I-5)

The proposed project would augment existing multi-modal connections between the Downtown and riverfront/Old Sacramento and Railyards areas including along Capitol Mall, the Crocker Art Museum campus, the riverfront areas, and between Capitol Mall and the northern part of 2nd Street into the Old Sacramento Historic District. This would be accomplished by constructing an additional I-5 overcrossing at N Street, converting a portion of existing

Neasham Circle into a bicycle/pedestrian only facility between Front Street and 2nd Street, constructing a viaduct (raised roadway) above the existing Neasham Circle south of Capitol Mall, and creating a 2nd Street connector as a new connection into Old Sacramento from Capitol Mall. The interface between the Front Street viaduct/2nd Street Connector and Capitol Mall would result in a new intersection. The existing slip ramps connecting N Street and L Street with Capitol Mall will be closed and the street pavement for the ramps may be removed. In addition, the following bicycle and pedestrian improvements are proposed: adding a sidewalk on the south side of the existing O Street overcrossing, adding sidewalk along the south side of existing N Street between I-5 and 3rd Street, and adding bicycle lanes and widened sidewalks on the existing Capitol Mall overcrossing.

The initial study/mitigated negative declaration (IS/MND) prepared for the I-5 Riverfront Reconnection Project (July 2011) concluded that potentially significant effects could occur to the environment as a result of the project. These potential impacts are associated with pre-existing groundwater contamination present near the project site that could pose an inadvertent risk to people and the environment. Historic land uses outside the boundary of the project site have affected groundwater quality. Additionally, potential impacts to archaeological or paleontological resources, and potential impacts from disturbance of roosting areas for hoary bat, purple martin, and Swainson's hawk were identified. The IS/MND incorporated all feasible mitigation measures that were appropriate to the project that were set forth in the *City of Sacramento 2030 General Plan Master Environmental Impact Report*, and set forth additional, project specific mitigation measures. The IS/MND concluded that identified impacts could be mitigated to less than significant levels with implementation of these measures.

RAILYARDS SPECIFIC PLAN

The Railyards is located directly north of Old Sacramento and consists of a 244-acre area, planned to be a mixed-use community with housing, retail, and open space. The proposed Railroad Technology Museum would be located in the Railyards at the Central Shops District, using two of the historic buildings in the Central Shops complex, the Boiler and Erecting Shops. The Central Shops, mainly consisting of seven historic brick railyards buildings from the Central Pacific Railroad Yard, constructed between 1868 and 1917, would be preserved, rehabilitated, and adaptively reused to celebrate the Sacramento's history as an important rail center (see Section 2.7.2).

The Railyards Specific Plan Draft Environmental Impact Report (City of Sacramento, August 2007) identified a number of potential environmental effects as a result of the project.

Significant impacts that could be mitigated to less than significant levels included the following:

- air quality degradation from construction and operational activities;
- adverse effects on nesting habitat for Swainson's hawk, white-tailed kite, and other sensitive riparian-nesting species, and burrowing owls;

- take of endangered and threatened fish species and degradation of designated critical habitat;
- loss of a sensitive bat species roosting site, which could result in substantially increased mortality or reduced reproductive success;
- increased mortality and adversely affect reproductive success of purple martins;
- net reduction of sensitive habitats including protected wetland habitat (Section 404 CWA), riparian vegetation, and state jurisdictional waters/wetlands;
- conflict with local policies protecting trees;
- adverse change in the significance of an archaeological and historical resources;
- present a hazard to construction workers due to contaminated soil;
- expose future residents of the property to hazardous substances from contaminated soil and groundwater;
- surface water quality degradation from new sources of polluted runoff; increased construction noise and ground borne vibration;
- increased noise levels affecting sensitive receptors;
- increased demand for parks and recreation facilities;
- increased need for wastewater treatment and water supply;
- adverse light and glare effects on adjacent areas.

Significant unavoidable impacts:

- Operation of the proposed project would result in the generation of increased ROG and NO_x emissions.
- Construction of the proposed Specific Plan would temporarily produce loud noise.
- The proposed Specific Plan could permanently expose sensitive receptors to traffic and rail noise levels.
- Initial Phase of the Specific Plan would degrade traffic levels of service.

Docks Area Specific Plan

The Sacramento *Docks Area Specific Plan* and the Specific Plan EIR envision a new mixed-use riverfront neighborhood on land that was formerly occupied by industrial uses. The Docks Area is located south of Old Sacramento, consists of a 29-acre triangular planning area bounded by the Sacramento River on the west, Front Street and I-5 on the east, and SR 50 on the south. The Docks Area provides circulation features and parks, both which help to create an interconnected riverfront system, linking to Old Sacramento (see Section 2.7.2).

Significant Impacts that can be mitigated:

- adverse light and glare effects on adjacent areas;
- air quality degradation from construction and operational activities;
- Loss of heritage trees and street trees;
- Loss of nesting and foraging habitat for special status species;
- Loss of archaeological and historical resources;
- Exposure of construction workers and future residents of the property to hazardous substances from contaminated soil and groundwater;
- adverse effects on Sacramento River levee from construction induced ground vibrations;

Significant Unavoidable Impacts resulting from the project include the following:

- air quality degradation;
- increased noise levels affecting sensitive receptors;

Significant Cumulative Impacts include:

- Increase in glare affecting adjacent properties;
- air quality degradation (SU);
- Loss of archaeological and historical resources;
- increased demand for parks and recreation facilities;
- Increase in traffic volumes at study intersections and on the freeway system (SU);
- Increase in the need for water supply facilities (SU).

California Indian Heritage Center Plan

The General Plan for the California Indian Heritage Center (CIHC) was approved by the California State Parks Commission in the summer of 2011. The CIHC is a planned new California State Park located in the city of West Sacramento on properties near the Sacramento River across from its confluence with the American River. The CIHC General Plan provides for construction to take place in four phases over approximately 15 to 20 years.

The CIHC main facility will house exhibits, a library, archives, and collections that will present a statewide perspective on California's diverse Indian cultural legacy. The facility will partner with tribal communities to collect and present traditional and contemporary California Indian artistic and cultural expressions. An artist-in-residence facility will support Native artists and allow visitors to view their work as it is created.

The CIHC grounds will maintain and restore the park's natural character, using plant species native to the immediate Sacramento River area except in programmed areas such as Native American demonstration gardens. Special event spaces will be developed near the main facility overlooking the Sacramento River and a plaza on the dry side of the levee that bisects the park.

A multi-use bicycle and pedestrian trail will run atop the levee and will connect with other bicycle facilities in the area. The park will contain a segment of the regional waterfront trail along the Sacramento River that connects with the River Walk Promenade Trail to the south. A boat dock is proposed at the north end of the park to accommodate private vessels and a river taxi that can serve other destinations along the Sacramento River, including Old Sacramento. Other facilities that can connect both sides of the Sacramento River, such as a proposed pedestrian bridge and upgrades to the Tower Bridge to accommodate pedestrian traffic are discussed in the Transportation Study included in the CIHC General Plan/EIR (see Section 2.7.2).

Significant environmental impacts were identified for biological resources, seismic hazards, and noise; however, mitigation measures were identified that would reduce the impacts to less-than-significant levels. The EIR for the project concluded that implementation of the Plan for the CIHC would make no considerable contribution to cumulative impacts.

Delta Shores

The proposed Delta Shores project is located in south Sacramento, adjacent to the southern boundary of the city limits. The project site is located south of the Meadowview neighborhood, is bordered on the west by the community of Freeport, and is bisected by Interstate 5. The proposed project includes the development of a 782-acre master-planned community and is envisioned as a compact residential community of approximately 5,092 residences with two mixed-use retail centers – a regional village center and a neighborhood-serving residential mixed-use retail area. The proposed project also includes open space, recreational uses, and pedestrian and bicycle facilities. The proposed village center is anticipated to include up to approximately 1.3 million square feet of retail and commercial uses while a residential/mixed-use area would include a maximum of approximately 161,600 square feet of retail and incorporated office uses. The proposed project proposes to subdivide approximately 315 acres into residential lots and approximately 118 acres into parks, trails, open space, and wetland preserve. Approximately 147 acres would be designated for commercial development (including the 19.9 acres of mixed-use) with the remaining area set aside for schools, utilities, a private community center, and roadways, including development of internal residential collector streets. The Sacramento City Council approved the financing plan for Delta Shores in January 2009.

The EIR prepared for the Delta Shores project identified environmental impacts related to agricultural resources, air quality, biological resources, noise, public services, and transportation and circulation that could be reduced to less-than-significant levels with implementation of mitigation measures included within the EIR. The EIR also identified significant and unavoidable project-specific impacts related to emissions of ozone precursors, exposure of sensitive receptors to increased traffic noise levels from local roadways, decreased level of service the Meadowview Road/24th Street intersection, and freeway operations. The EIR identified significant and unavoidable cumulative impacts related to emissions of ozone precursors, level-of-service deterioration on local roadway segments and intersections, and freeway operations.

Cumulative Impacts of the Old Sacramento State Historic Park and California State Railroad Museum General Plan

The goals and guidelines in the General Plan and mitigation requirements contained in this EIR require management actions and measures be implemented that would preserve, protect, restore, or otherwise minimize adverse effects related to air quality, biological resources, cultural resources, light and glare, seismic hazards, hazardous materials, airport safety, water quality, flood risk, wildland fire, and temporary construction noise. With the implementation of these actions, the proposed project's contribution to cumulative impacts would be less-than-considerable for all of these resource areas. The General Plan would result in significant unavoidable impacts related to increased noise as a result of excursion train # 2 operations and service operations.

When considered with existing noise from traffic on I-5, the General Plan **would not make a new considerable contribution to cumulatively significant noise impacts** in the areas adjacent to the excursion train line between the Baths and the Zoo, because operations would be essentially similar to those currently in existence, and no new at grade intersections that would require horn blasts are located in this area. However, train pass by noise in the area would still be considered significant and unavoidable. In the area south of the zoo, the General Plan would result in significant and unavoidable noise impacts related to train pass by noise and horn blasts at at-grade public intersection. However, these impacts would not result in new cumulative noise impacts because the project-level impacts would be associated with instantaneous noise increases and would not be cumulatively considerable.

For all other resource areas, cumulative impacts resulting from implementation of the General Plan would be less-than-significant.

5.8 ALTERNATIVES TO THE PROPOSED PLAN

The guiding principles for the analysis of alternatives in this EIR are provided by the State CEQA Guidelines Section 15126.6, which indicates that the alternatives analysis must: (1) describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project; (2) consider alternatives that could reduce or eliminate any significant environmental impacts of the proposed project, including alternatives that may be more costly or could otherwise impede the project's objectives; and (3) evaluate the comparative merits of the alternatives. The State CEQA Guidelines Section 15126.6(d) permits the evaluation of alternatives to be conducted in less detail than is done for the proposed project. A description of the project alternatives, including the No Project Alternative, is provided below to allow for a meaningful evaluation, analysis, and comparison of these alternatives with the Proposed Project Alternative, which is the General Plan as described in Chapter 4.

5.8.1 ALTERNATIVES

Various alternatives were considered during the General Plan formulation process, including an alternative to extend the excursion train the full length of the line from OSSHP to Hood. This alternative was eliminated from further discussion in the EIR since it would not reduce or eliminate any significant environmental impacts, and therefore would not satisfy CEQA Guidelines Section 15126.6, described above. The alternatives considered within Old Sacramento involved different uses for the various buildings included within OSSHP. For the purposes of comparing the alternatives, different uses for the various buildings would result in similar effects related to physical construction related impacts, therefore, this analysis of alternatives focuses on the differences between the proposed changes related to the train excursion lines, and uses of the ROW corridor.

ALTERNATIVE 1: GENERAL PLAN WITH NO EXTENSION OF EXCURSION TRAIN

DESCRIPTION

This alternative would consist of implementation of the General Plan as proposed, but would not extend the excursion train past the Baths area (the return site of the existing excursion train), nor would it include a second excursion train from Meadowview to Hood. No improvements to the tracks south of the Baths would be made.

EVALUATION

This alternative would result in fewer impacts when compared to the Preferred Alternative for the following reasons:

- This alternative would avoid noise impacts that would occur to residential land uses between the Baths area and the Sacramento Zoo, and in Freeport on the Meadowview to Hood rail line.
- This alternative would avoid noise impacts that would occur to residential areas as a result of maintenance activities on the tracks and movement of train equipment between the Zoo and the Pocket/Meadowview station.
- This alternative would have fewer air quality impacts than the preferred alternative because excursion train operations would not be extended beyond the existing run from Old Sacramento to Baths.
- This alternative would have fewer potential impacts to biological resources than the proposed General Plan, because it would not involve construction or operation of facilities in areas that are currently overgrown by vegetation or pass through natural areas.

For all other resource topics, this alternative would have impacts similar to those discussed in the proposed General Plan.

This alternative would partially fulfill the purpose and vision for OSSHP and CSRM by providing for expanded restoration of structures and visitor-serving facilities that would enhance interpretive opportunities and provide for an enhanced visitor experience within the two parks. It would not fulfill the vision to provide expanded visitor services and experiences within the entire planning area, because it would not make use of the existing unused ROW for visitor-serving purposes.

ALTERNATIVE 2: GENERAL PLAN WITH LIMITED EXTENSION OF THE EXCURSION TRAIN

DESCRIPTION

This alternative would consist of implementation of the General Plan as proposed, with extension of the excursion train to the Zoo (Train Line #1 only). There would be no second excursion train (Train Line #2) from Meadowview to Hood. No improvements to the tracks south of the Zoo would be made.

EVALUATION

This alternative would result in fewer impacts when compared to the Proposed General Plan for the following reasons:

- This alternative would avoid noise impacts from excursion trains that would occur to residential land uses south of Sacramento Zoo
- This alternative would avoid noise impacts that would occur to residential areas as a result of maintenance activities on the tracks and movement of train equipment between the Zoo and Pocket/Meadowview station.
- This alternative would have fewer air quality impacts than the preferred alternative because excursion train operations would not be extended between Meadowview and Hood
- This alternative would have fewer potential impacts to biological resources than the proposed General Plan, because it would not involve construction or operation of facilities in areas that are currently overgrown by vegetation or pass through natural areas.
- For all other resource topics, this alternative would have impacts similar to those discussed in the proposed General Plan.

This alternative would partially fulfill the purpose and vision of OSSHP and CSRM by providing for expanded restoration of structures and visitor-serving facilities that would enhance interpretive opportunities and by extending the excursion train to the Zoo. This alternative would not provide the same opportunity for additional excursion train experiences that the Proposed General Plan would provide because the expanded excursion train opportunities would be small. It would not fulfill the vision to provide expanded visitor services and experiences within the entire planning area, because it would make use of only a small portion of the existing unused ROW for visitor-serving purposes.

ALTERNATIVE 3: NO PROJECT ALTERNATIVE

DESCRIPTION

Under the No Project Alternative, no new buildings (recreations of historic structures) or other structures would be constructed in OSSHP and CSRM. This alternative would allow existing interpretive programs and activities to continue in Old Sacramento; however, no structural improvements that would allow expansion of the interpretive programs would be made.

The Excursion Train activities would remain unchanged from the current program; the train would continue to run on the same schedule as it currently does, traveling from Old Sacramento to Baths area and back.

EVALUATION

This alternative would result in substantially fewer impacts than the Proposed General Plan for the following reasons:

- This alternative would avoid noise impacts that would occur to residential land uses south of the Baths area.
- This alternative would avoid new air quality impacts, because the excursion train would not be extended beyond the Baths area, and traffic conditions and parking demand would not change from existing conditions.
- This alternative would avoid impacts associated with construction (air quality, noise, potential for water quality impacts from storm water runoff).
- This alternative would avoid impacts to natural and cultural resources, because no new construction and ground disturbing activities beyond those currently allowable would occur.

This alternative would not fulfill the purpose and vision of OSSHP and CSRM to “preserve, study, restore, reconstruct, and interpret” the early history of the city, and to provide opportunities for visitors to experience the history and events that shaped the growth and development of the city and California. In addition, visitor amenities would not be expanded within OSSHP or CSRM.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

According to State CEQA Guidelines Section 15126.6(e)(2) “If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”

The environmentally superior alternative is the No Project Alternative. However, as explained above, in compliance with CEQA, the EIR must identify an environmentally superior alternative from among the other alternatives. In this case Alternative 1 is considered the environmentally superior alternative. This alternative avoids the added noise and air quality impacts associated

with extension of the excursion train to the Zoo, and from Meadowview to Hood. This alternative also results in fewer potential impacts to biological resources and traffic, as it does not involve physical alterations to the existing environment outside of the OSSHP and CSRM planning area in Old Sacramento.

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