

RIVER DISTRICT SPECIFIC PLAN

Draft Environmental Impact Report (SCH 2009062023)

July 2010



CITY OF SACRAMENTO
COMMUNITY DEVELOPMENT
DEPARTMENT
300 Richards Boulevard
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CHAPTER 1: INTRODUCTION

Chapter 1	Introduction
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This Environmental Impact Report (EIR) prepared for the River District Specific Plan project (Proposed Project) is in accordance with the California Environmental Quality Act of 1970 (CEQA) (Public Resources Code Sections 21000-21178) as amended and the Guidelines for the Implementation of CEQA (CA Code, Title 14, Sections 15000-15387) (CEQA Guidelines). The City of Sacramento is the Lead Agency for the environmental review of the Proposed Project and has the principal authority of approving the project. As required by CEQA Guidelines Section 15121, this Draft EIR assesses the potential environmental impacts resulting from approval, construction, and implementation of the Specific Plan, and identifies mitigation to either eliminate or reduce the potentially adverse environmental impacts, when feasible. The analyses determined that the RDSP could result in some significant and unavoidable impacts.

Proposed Project

This River District Specific Plan (Specific Plan or RDSP) was prepared in accordance with the requirements of California Government Code Section 65450, which allows a city to adopt policies, programs, and regulations to implement the jurisdiction's General Plan. A specific plan is a bridge between the General Plan, Zoning Code, planned unit developments, and a community plan.

The River District Specific Plan creates planning and design standards to guide future development within the Specific Plan area. The Specific Plan will guide future decisions regarding land use, intensity of development, circulation, urban design, infrastructure, public services, protection of historic resources, and parks and open space. Also included is a financing plan for the proposed public infrastructure.

The Specific Plan area is approximately 748 acres of mostly developed land. The District is currently comprised of a mix of residential, industrial, retail/wholesale, and office uses. The area also houses a number of social service providers.

The Specific Plan envisions an eclectic, mixed-use community, with improved road, bicycle, and pedestrian connections to the surrounding neighborhoods. The proposed target growth for the RDSP would approximately 5,408 residential dwelling units, 315,600 square feet of commercial uses, 264,000 square feet of office space, and 2,038 hotel rooms, phased over a 25-year period. It is assumed that the amount of light industrial uses within the Specific Plan area would decrease because the RDSP would prohibit new development of such uses.

The RDSP proposes changes in the circulation patterns in order to increase connectivity with areas south of the Specific Plan area.

Implementation of the Specific Plan would require upgrades to the water, sewer, drainage, and energy facilities in the area.

Purpose of EIR

CEQA requires that a Local Agency prepare an EIR on any project that may have a significant effect on the environment. The purpose of an EIR is not to recommend approval or denial of a project, but to provide decision-makers, public agencies, and the public with an objective and informational document that fully discloses the potential environmental effects of a proposed project. The EIR process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative impacts of a proposed project; to

identify alternatives that reduce or eliminate a project's significant effects; and to identify feasible measures that mitigate significant effects of a project. In addition, CEQA requires that an EIR identify those adverse impacts that remain significant after mitigation.

Type of Document

As used in this Draft Environmental Impact Report (DEIR), the term “project” refers to the activity being approved, the RDSP, that would be subject to several discretionary approvals by the City. See Chapter 3, Project Description, for the entitlements associated with the proposed RDSP. As noted in Chapter 3, the goal of the Plan is to master plan the project area and install the backbone utility and circulation infrastructure necessary to serve the development envisioned by the RDSP.

In accordance with Article 11.5, Master Environmental Impact Report, of the CEQA Guidelines, this EIR is tiered from the Master EIR (MEIR) prepared for the City’s 2030 General Plan. The Master EIR is available for public review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor and on the City’s web site at: www.cityofsacramento.org/dsd/planning/environmental-review/eirs/.

The City of Sacramento reviewed the Proposed Project and, on the basis of the whole record before it, determined that the Project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR. This EIR incorporates by reference the MEIR and analyzes the additional potentially significant environmental effects and any new or additional mitigation measures or alternatives that were not identified in the MEIR. The mitigation measures from the MEIR that are applicable to the proposed Specific Plan are identified in the applicable technical sections.

This EIR is a *program-level EIR* pursuant to CEQA Guidelines Section 15168. A program EIR allows a Lead Agency to consider broad policy alternatives and program-wide mitigation measures that will apply when individual projects are carried out under the same authorizing authority and have generally similar environmental effects that can be mitigated in similar ways.

An Initial Study was not prepared for this Project, as all technical issue areas are addressed or analyzed in the DEIR.

EIR Process

In accordance with the CEQA Guidelines, a Notice of Preparation (NOP) was released June 2, 2009 for a 30-day agency and public review period. The NOP was distributed to responsible agencies, interested parties, business owners, residences, and landowners within the project area. The purpose of the NOP was to provide notification that an EIR for the project would be prepared and to solicit guidance on the scope and content of the document. A summary of the comments received on the NOP is included in each technical chapter. A copy of the NOP and comment letters received are included in Appendix A.

A public scoping meeting was held on August 20, 2009. Responsible agencies and members of the public were invited to attend and provide input on the scope of the EIR.

This Draft EIR was circulated for public review and comment for a period of 45 days. Upon completion of the public review period, a Final EIR will be prepared that will include written comments on the Draft EIR received during the public review period and the City’s responses to those comments. The Final EIR will also include the Mitigation Monitoring Program (MMP). The Final EIR will address any revisions to the Draft EIR made in response to public comments. The Draft EIR and Final EIR together will comprise the EIR for the proposed project.

Before the City of Sacramento can approve the project, it must first certify that the EIR was completed in compliance with CEQA, that the City Council reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the City. The City Council will also be required to adopt Findings of Fact for those impacts determined to be significant and unavoidable, and adopt a Statement of Overriding Considerations.

Organization of the Draft EIR

This Draft EIR includes nine principal parts:

Summary of Impacts and Mitigation Measures (Chapter 2) presents an overview of the results of the environmental analyses.

The Project Description (Chapter 3) describes the location of the proposed project, existing conditions within the project area, and the nature and location of specific elements of the proposed project, as well as requested project entitlements and/or approvals.

Chapter 4 (Land Use) discusses the consistency of the Proposed Project with the various existing land use plans and policies that govern the Specific Plan area.

The technical analyses (Chapter 5) include analyses of direct or primary impacts that would, or could, result from implementation of the proposed project. The analyses include the cumulative effects of implementation of the RDSP and other projects.

CEQA Considerations (Chapter 6) include the discussions that are required by CEQA. These discussions are growth inducement, irreversible or unavoidable environmental impacts, and the significant environmental effects that cannot be avoided if the project is implemented.

Chapter 7, Alternatives, includes a description of the project alternatives. An EIR is required by CEQA to describe a range of alternatives to the project that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project. The comparative merits of the alternatives are evaluated. The impacts of the alternatives are qualitatively compared to those of the proposed project. The alternatives described in this EIR are:

- No Project/Existing Zoning
- Existing Street Pattern/Historic Preservation

A list of the references used throughout the Draft EIR is included in Chapter 8.

Chapter 9 includes a list of preparers of the Draft EIR.

The Appendices contain the items providing support and documentation of the analyses performed for this DEIR.

Contact Person

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CHAPTER 2: SUMMARY

Chapter 2

Summary

Introduction

Implementation of the Specific Plan would result in significant impacts to the environment. Specifically, the significant impacts would include air quality, historical resources, noise and vibration, and transportation and circulation. CEQA Guidelines Section 15382 defines a significant effect as a substantial, or potentially substantial, adverse change in any physical conditions within the area affected by the project including land, air, water minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

CEQA Guidelines Section 15126.4 requires that an EIR describe feasible mitigation measures which could minimize significant adverse impacts. Implementation of mitigation measures would either: reduce the impact to a less-than-significant level or leave the impact as significant and unavoidable.

This section summarizes the Proposed Project, the potential issues of concern as indicated from responses to the Notice of Preparation (NOP), and the Proposed Project impacts and applicable mitigation measures (Table 2-1). Table 2-1 below details the following: the Specific Plan impacts, the significance of the impact after implementation of the General Plan Master Environmental Impact Report (MEIR) mitigation measure and/or policy, additional mitigation measures that could be implemented, and the significance of the impact after the mitigation measure(s) is applied. The mitigation measures apply only to the areas of the River District that do not have project specific mitigation measures.

Summary of the Proposed Project

The River District Specific Plan creates planning and design standards to guide future development within the Specific Plan area. The Specific Plan will guide future decisions regarding land use, intensity of development, circulation, urban design, infrastructure, public services, protection of historic resources, and parks and open space. Also included is a financing plan for the proposed public infrastructure. Implementation of the Specific Plan would require upgrades to the water, sewer, drainage, and energy facilities in the area.

Potential Issues of Concern

Responses to the NOP were received from the California Department of Transportation (Caltrans), the California Integrated Waste Management Board (CIWMB), the California Department of Fish and Game (DFG), the Sacramento Metropolitan Air Quality District (SMAQMD), Sacramento Regional Transit (RT), the American River Flood Control District (ARFCD), the County of Sacramento (County), the Sacramento Regional County Sanitation District (SRCSD), Pacific Gas and Electric (PG&E), the Sacramento Area Bicycle Advocates (SABA), WalkSacramento, and a public member. The following summarizes the comments received on the NOP that identify potential issues of concern:

- Caltrans: Caltrans had the following comments: a Traffic Impact Study (TIS) should be completed. Another option is available instead of CEQA for mitigation of cumulative impacts to the State Highway System. Sign plans should be provided to Caltrans for review. An encroachment permit will be required for work in the State's right-of-way.

- CIWMB: The CIWMB provided information about the presence of the landfills and notified the City of the potential for volatile landfill gas to migrate to the RDSP area.
- DFG: DFG had the following comments: The natural habitats should be identified and the project's effects on their function and value should be addressed. The impact on wetlands, including riparian habitat, should be addressed. The project should be designed to avoid wetlands. The project's potential impacts on special status species should be analyzed, in particular the Swainson's hawk. The project's growth inducing and cumulative impacts on fish, wildlife, water quality, and vegetative resources should be analyzed. Specific alternatives to reduce impacts to fish, wildlife, water quality, and vegetative impacts should be analyzed. Discuss whether the project would involve work undertaken in, or near, a water body.
- SMAQMD: The proposed RDSP should: maximize the connectivity for bicyclists and pedestrians to surrounding neighborhoods, include evaluation of sensitive land use compatibility with toxic air contaminant (TAC) exposure for both roadway and rail lines, include a discussion of climate change, include an evaluation of short term construction impacts and long-term operational impacts using the SMAQMD's thresholds of significance.
- RT: RT provided information regarding nearby and proposed light rail lines and stations, bus operations, and transit services in and near the project area. RT also indicated that the benefits of public transit need to be assessed, transit-oriented development shall be provided adjacent to light rail stations, business and residential development shall develop transit supportive programs, bike and pedestrian connectivity is critical, construction activities shall not impact transit service or pedestrian access to transit facilities, park and ride facilities that affect transit operations should be considered, surface parking lots can create heat islands, parking ratios should be lower than City standards, traffic signal priority for buses shall be incorporated into major intersections.
- ARFCD: ARFCD provided the following comments: the waterside reach is overlain with a federally authorized flood control levee, development on either the water- or land-side of the levee is subject to permits from the Central Valley Flood Protection Board, and the American River Flood Control District maintains and operates the flood control easements on both sides of the levee along the American River.
- County: Notified the City of a previous landfill area adjacent to the RDSP site on the east.
- SRCSD: Indicated that the total wastewater flow that can be discharged to the City Interceptor is 108.50 million gallons per day (MGD). The SRCSD stated that it is the City's responsibility to ensure that the additional flows from the RDSP project to not exceed the established limits.
- PG&E: Ensure that plans should provide for unrestricted utility access and prevent encroachments that are unsafe.
- SABA: Exam bicycle and pedestrian connectivity, particularly connecting externally across the rivers and manmade features.
- WalkSacramento: Address the following: access to bikeways on east side of the Sacramento River and the south side of the American River, Pedestrians and bicyclist delay due to signal timing at the I-5/Richards Boulevard interchange, land available to provide convenient approaches to the future Truxel crossing of the American River for pedestrians and bicyclists, include a diagram indicating pedestrian walkways, level of amenities, and major destinations, mitigations that promote non-

vehicular transportation for significant impacts to vehicle Level of Service should be quantified, and internal connectivity.

- Public Member: The plan needs to take advantage of the two rivers that surround the site, and river access is limited to the Two River Trail.

Appendix A includes the NOP and the NOP responses.

Summary Table

TABLE 2-1				
SUMMARY OF IMPACTS AND MITIGATION MEASURES				
Impact	Project significance after mitigation/policies included in General Plan EIR	Additional Mitigation for Project		Residual Significance
5.1 Air Quality				
5.1-1: Construction activities within the RDSP area could result in NO_x levels above 85 pounds per day.	<i>Potentially Significant</i>	MM 5.1-1(a)	<p><i>The following shall be incorporated into all City construction contracts and included on all construction plans</i></p> <ul style="list-style-type: none"> • <i>Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.</i> • <i>Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.</i> • <i>Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.</i> • <i>Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).</i> • <i>All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.</i> • <i>Minimize idling time either by shutting equipment off when not in use or reducing</i> 	Less than Significant

			<p><i>the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.</i></p> <ul style="list-style-type: none"> <i>Maintain all construction equipment in proper working condition according to manufacturer’s specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.</i> 	
		MM 5.1-1(b)	<p><i>The following shall be incorporated into all construction plans for projects that estimated construction related NO_x emissions exceed 85 lbs/ day.</i> <i>Category 1: Reducing NO_x emissions from off-road diesel powered equipment</i></p> <p><i>The project shall provide a plan, for approval by the lead agency and SMAQMD, demonstrating that the heavy-duty (> 50 horsepower) self-propelled off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent particulate reduction¹ compared to the most recent CARB fleet average at time of construction; and</i></p> <p><i>The project representative shall submit to the lead agency and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.</i></p>	
		MM 5.1-1(c)	<p><i>The following shall be incorporated into all construction plans for projects that estimated construction related NO_x emissions exceed 85 lbs/ day.</i> <i>Category 2: Controlling visible emissions from off-road diesel powered equipment</i></p> <p><i>The project shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and the lead agency and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall</i></p>	

			<p><i>be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or state rules or regulations.</i></p> <p>and/or:</p> <p><i>If at the time of construction, the SMAQMD has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with SMAQMD prior to construction will be necessary to make this determination.</i></p>	
		MM 5.1-1(d)	<p><i>The following shall be incorporated into all construction plans for projects that estimated construction related NO_x emissions exceed 85 lbs/ day.</i></p> <p><i>If projected construction related emissions for a project are not reduced below the 85 lbs/ day by application of MM 5.1-1(b&c), then an off-site construction mitigation fee shall be applied. The construction mitigation fee shall be calculated based upon the SMAQMD's current construction mitigation fee at the time of project specific evaluation. Verification of payment of the mitigation fee shall be provided to the City prior to issuance of any grading permits</i></p>	
5.1-2: Construction within the RDSP could result in PM₁₀ concentrations that exceed acceptable thresholds.	<i>Less than Significant</i>	MM 5.1-2(a)	<i>Comply with MM 5.1-1(a)</i>	<i>Less than Significant</i>
		MM 5.1-2(b)	<i>Grading and ground disturbance activities shall not exceed 15 acres per day for any individual development project.</i>	
5.1-3: Implementation of the RDSP would result in operational emissions that could increase either of the ozone precursors, NO_x and ROG, above 65 pounds per day.	<i>Less than Significant</i>	MM 5.1-3	<i>None required..</i>	<i>Less than Significant</i>

5.1-4: Implementation of the RDSP could result in CO concentrations that exceed the 1-hour state ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour state ambient standard of 9.0 ppm.	<i>Less than Significant</i>	MM 5.1-4	<i>None required.</i>	<i>Less than Significant</i>
5.1-5: Implementation of the RDSP would result in TAC emissions that could adversely affect sensitive receptors.	<i>Less than Significant</i>	MM 5.1-5	<i>None required.</i>	<i>Less than Significant</i>
5.1-6: Implementation of the RDSP, in conjunction with other construction activities in the SVAB, would increase cumulative construction-generated NO _x levels above 85 pounds per day.	<i>Significant</i>	MM 5.1-6	<i>Comply with MM 5.1-1 (a - d)</i>	<i>Significant and Unavoidable</i>
5.1-7: Implementation of the RDSP, in conjunction with other development in the SVAB, would increase cumulative operational levels of either ozone precursors, NO _x or reactive organic gases (ROG), above 65 pounds per day.	<i>Less than Significant</i>	MM 5.1-7	<i>None required.</i>	<i>Less than Significant</i>
5.1-8: Implementation of the RDSP, in conjunction with other development in the SVAB, would emit	<i>Significant</i>	MM 5.1-8	Comply with MM 5.1-2(a & b)	<i>Significant and Unavoidable</i>

particulate pollutants associated with construction activities at a cumulative level equal to, or greater than, five percent of the CAAQS (50 micrograms/cubic meter for 24 hours).				
5.1-9: Implementation of the RDSP, in conjunction with other development in the SVAB, could result in CO cumulative concentrations that exceed the 1-hour State ambient air quality standard of 20.0 ppm or the 8-hour State ambient standard of 9.0 ppm.	<i>Less than Significant</i>	MM 5.1-9	<i>None required.</i>	<i>Less than Significant</i>
5.1-10: Implementation of the RDSP, in conjunction with other development in the SVAB, would generate TAC emissions that could adversely affect sensitive receptors.	<i>Less than Significant</i>	MM 5.1-10	<i>None required.</i>	<i>Less than Significant</i>
5.2 Biological Resources				
5.2-1: Implementation of the RDSP could create a potential health hazard, or involve the use, production, or disposal of materials that pose a	<i>Less than Significant</i>	MM 5.2-1	<i>None required.</i>	<i>Less than Significant</i>

<p>potential hazard to plant or animal populations in the affected area.</p>				
<p>5.2-2: Implementation of the RDSP could adversely affect special-status birds due to the substantial degradation of the quality of the environment or reduction of the population or habitat below self-sustaining levels due to loss or disturbance of nesting and/or foraging habitat.</p>	<p>Potentially Significant</p>	<p>MM 5.2-2(a)</p>	<p><i>Preconstruction surveys for burrowing owls shall be conducted in accordance with the Burrowing Owl Survey Protocol and Mitigation Guidelines (The California Burrowing Owl Consortium 1993), which calls for surveying out to 500 feet from project limits where suitable habitat is present. If owls are identified in the biological study area, mitigation measures will be implemented as outlined in the CDFG's 1995 Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 1995). These measures will include those listed here.</i></p> <p><i>If occupied owl burrows are found within the biological study area, a determination will be made by a qualified biologist in consultation with the CDFG regarding whether work will affect the occupied burrows or disrupt reproductive behavior.</i></p> <p><i>If it is determined that construction will affect occupied burrows during August through February, the subject owls will be passively relocated from the occupied burrow(s) using one-way doors. One-way doors will be in place for a minimum of 48 hours before burrows are excavated.</i></p> <p><i>If it is determined that construction will physically affect occupied burrows or disrupt reproductive behavior during the nesting season (March through July), avoidance is the only mitigation available. Construction will be delayed within 300 feet of occupied burrows until it is determined that the subject owls are not nesting or until a qualified biologist determines that juvenile owls are self sufficient or are no longer using the natal burrow as their primary source of shelter.</i></p>	<p>Less than Significant</p>
		<p>MM 5.2-2(b)</p>	<p><i>Construction and demolition activities shall be conducted during the non-nesting season (August 1 through March 19) whenever feasible.</i></p> <p><i>If construction or demolition activities occur during the nesting season (between March 20 and July 30), a qualified biologist shall conduct a survey for nesting Swainson's hawk within a 0.5 mile of the demolition/construction activities using the California Department of Fish and Game's (CDFG) Recommended Timing and Methodology for Swainson's Hawk</i></p>	

			<p><i>Nesting Surveys in California’s Central Valley or as required by CDFG.</i></p> <p><i>Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities, and shall be conducted in accordance with the California Department of Fish and Game (CDFG) protocol as applicable.</i></p> <p><i>If no active Swainson’s hawks nests are identified a copy of the preconstruction survey and letter report stating the survey results shall be sent to the City of Sacramento and no further mitigation is required.</i></p> <p><i>If active nests are found, measures consistent with the CDFG Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks in the Central Valley of California shall be implemented. These measures include, but shall not be limited to:</i></p> <p><i>No intensive disturbances (such as heavy equipment operation associated with construction, use of cranes, or rock-crushing) or other project-related activities that may cause nest abandonment or forced fledging, can be initiated with 200 yards (buffer zone) of an active nest between March 20 and July 30. The size of the buffer area may be adjusted by a qualified biologist</i></p> <p><i>If demolition/ construction activities are unavoidable within the buffer zone, the project applicant shall retain a qualified biologist to monitor the nest to determine if abandonment occurs. If the nest is abandoned and the nestlings are still alive, the project applicant shall retain the services of a qualified biologist to reintroduce the nesting(s) (recovery and backing). Prior to implementation, any backing plan shall be reviewed and approved by the Environmental Services Division and Wildlife Management Division of the CDFG.</i></p> <p><i>Completion of the nesting cycle will be determined by a qualified biologist.</i></p>	
		<p>MM 5.2-2(c)</p>	<p><i>Prior to any grading, demolition, or construction activities from March 15 to May 15 within 100 feet of the bridges over the American River adjacent to the project site, a preconstruction survey shall be conducted by a qualified biologist within 15 days of the start of project-related activities. If active nests are present, no construction shall be</i></p>	

			<p>conducted within 100 feet of the edge of purple martin colony (as demarcated by the active nest hole closest to the construction activity) at the beginning of the purple martin breeding season from March 15 to May 15. The buffer areas shall be avoided to prevent disturbance to the nest(s) until it is no longer active. The size of the buffer areas may be adjusted in a qualified biologist and CDFG determine is would not be likely to have adverse effects on the purple martins. No project activity shall commence within the buffer areas until a qualified biologist confirms that the nest(s) is no longer active.</p>	
<p>5.2-3: Implementation of the RDSP could adversely affect special-status mammals due to the substantial degradation of the quality of the environment or reduction of population or habitat below self-sustaining levels.</p>	<p><i>Potentially Significant</i></p>	<p>MM 5.2-3</p>	<p>Prior to demolition activities, the project applicant shall retain a qualified biologist to conduct a focused survey for bats and potential roosting sites within the area of disturbance. If no roosting sites or bats are found, a letter report confirming absence shall be sent to the City of Sacramento and no further mitigation is required.</p> <p>If bats are found roosting outside of the nursery season (May 1 through October 1), then they shall be evicted as described under (c) below. If bats are found roosting during the nursery season, then they shall be monitored to determine if the roost site is a maternal roost. This can occur either by visual inspection of the bat pups, if possible, or monitoring the roost for sounds of bat pups after the adults leave for the night. If the roost is determined to not be a maternal roost, then the bats shall be evicted as described under (c). Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. A 250-foot (or as determined in consultation with CDFG) buffer zone shall be established around the roosting site within which no construction shall occur.</p> <p>Eviction of bats shall be conducted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with CDFG, that allow the bats to exist the roosting site but prevent re-entry to the site. This would include, but not be limited to, the installation of one-way exclusion devices. The devices would remain in place for seven days and then the exclusion points and any other potential entrances shall be sealed. This work shall be completed by a BCI-recommended exclusion professional.</p>	<p>Less than Significant</p>
<p>5.2-4: Implementation of the RDSP could result in the loss of</p>	<p><i>Potentially significant</i></p>	<p>MM 5.2-4</p>	<p>Prior to any ground-disturbing, demolition, or construction activities, the project applicant shall retain a qualified biologist to conduct a survey to identify and document all potential valley elderberry longhorn beetle habitat (VELB). The survey</p>	<p>Less than Significant</p>

<p>CDFG-defined sensitive natural communities, such as an elderberry savanna, resulting in a substantial adverse effect.</p>		<p><i>and evaluation methods shall be performed consistent with the US Fish and Wildlife Service’s (USFWS) VELB survey methods. The survey shall include a stem count of stems greater than, or equal to, one-inch in diameter and an assessment of historic or current VELB use. If no such habitat is found, mitigation is not necessary.</i></p> <p><i>Avoidance</i></p> <p><i>The proposed project shall be designed to avoid ground disturbance within 100 feet of the dripline of elderberry shrubs identified in the survey, as noted in (a) above, as having stems greater than or equal to one inch in diameter. The 100-foot buffer could be adjusted in consultation with the USFWS. If avoidance is achieved, a letter report confirming avoidance shall be sent to the City of Sacramento and no further mitigation is required.</i></p> <p><i>Before any ground-disturbing activity, a qualified biologist shall flag the elderberry shrubs that will be retained adjacent to the biological study area. Thereafter, the City shall ensure that a minimum 4-foot-tall temporary, plastic mesh-type construction fence (Tensor Polygrid or equivalent) is installed at least 100-feet from the driplines of the flagged elderberry shrubs. This fencing is intended to prevent encroachment by construction vehicles and personnel. The fencing shall be strung tightly on posts set at a maximum interval of 10 feet. The fencing shall be installed in a way that prevents equipment from enlarging the work area beyond the delineated work area. The fencing shall be checked and maintained weekly until all construction is completed. Signs shall be placed at intervals of 50 feet and must be readable at a distance of 20 feet. This buffer zone will be marked by signs stating:</i></p> <p><i>“This is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.”</i></p> <p><i>No construction activity, including grading, clearing, storage of equipment or machinery shall be allowed until this condition is satisfied. The fencing and a note reflecting this condition will be shown on the construction plans.</i></p> <p><i>In addition to (b)(1-3) above, the following shall also be implemented:</i></p> <p><i>The City will ensure that dust control measures are implemented for all ground-disturbing</i></p>	
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		<p><i>activities in the project area. These measures may include application of water to graded and disturbed areas that are unvegetated; however the City or its contractor may use other measures more appropriate for site-specific conditions, as long as dust is minimized to the maximum extent practicable. To avoid attracting Argentine ants, at no time will water be sprayed within the driplines of elderberry shrubs.</i></p> <p><i>Pursuant to the USFWS VELB Guidelines, the City will implement the following measures to mitigate for the direct and indirect impacts on VELB before groundbreaking occurs for the proposed project.</i></p> <p><i>If disturbance within 100-feet of the dripline, or approved equal by the USFWS, of the elderberry shrub with stems greater than or equal to one-inch in diameter is unavoidable, then the project applicant shall retain the services of a qualified biologist to develop VELB mitigation plan in accordance with the current USFWS mitigation guidelines for unavoidable take of VELB habitat pursuant to either Section 7 or Section 10(a) of the Federal Endangered Species Act. The mitigation plans shall be reviewed and approved by the USFWS prior to any disturbance within the 100-foot dripline.</i></p> <p><i>Compensatory Mitigation</i></p> <p><i>Transplant Directly Affected Elderberry Shrubs</i></p> <p><i>Elderberry shrubs will be transplanted when the plants are dormant, approximately November through the first two weeks in February, after they have lost their leaves. Transplanting during the non-growing season will reduce shock to the plant and increase transplantation success. The project applicant shall follow the specific transplanting guidance provided in the USFWS VELB Guidelines.</i></p> <p><i>Shrubs shall be transplanted to the French Camp Conservation Bank, or another UFWs-approved site. Elderberry seedlings and associated native plants will also be established at the site according to the ratios outlined in the Guidelines. See USFWS Biological Opinion, page 6, Table 1 issued on October 8, 2009 for the ratios.</i></p> <p><i>Compensate for Direct Impacts on Elderberry Shrubs</i></p> <p><i>According to the USFWS VELB Guidelines, adversely affected shrubs that are</i></p>	
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			<p><i>“transplanted or destroyed” should be mitigated for according to the measures outlined in Table 1 of the USFWS VELB Guidelines. The City will mitigate for impacts on the shrubs by purchasing mitigation credits at a USFWS-approved mitigation bank. A summary of the required mitigation is provided in Table 3.7-2. As shown in the table, the proposed project would require 22 elderberry seedlings and 28 associated native plants (six VELB credits) to be planted at a USFWS-approved mitigation bank. Currently, VELB mitigation credits are available at French Camp Conservation Bank. The shrubs identified for transplantation will be transplanted to this mitigation bank.</i></p> <p><i>If the VELB is delisted by the USFWS prior to the initiation of any ground disturbing, demolition, or construction activities, the project applicant shall comply with any requirements that accompany the VELB delisting notice.</i></p>	
<p>5.2-5: Implementation of the RDSP could result in a violation of City Code Section 12.64.040 (related to Heritage trees)</p>	<p><i>Potentially Significant</i></p>	<p>MM 5.2-5</p>	<p><i>Prior to the removal of any Heritage tree, the project applicant shall contact the City’s Arborist and develop and enact a tree mitigation plan in compliance with the City’s requirements.</i></p>	<p><i>Less than Significant</i></p>
<p>Cumulative 5.2-6: Implementation of the RDSP, in addition to other projects within the City and greater Sacramento Valley could result in potential health hazards, or involve the use, production, or disposal of materials that pose a hazard to plant or animal populations.</p>	<p><i>Less than Significant</i></p>	<p>MM 5.5-4</p>	<p><i>None required.</i></p>	<p><i>Less than Significant</i></p>

5.3 Cultural Resources				
<p>5.3-1: Implementation of the RDSP could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines Section 15064.5.</p>	<p><i>Less than Significant , Potentially Significant (for State Printing Plant only)</i></p>	<p>MM 5.3-1</p>	<p><i>None required.. None available (for State Printing Plant only)</i></p>	<p>Less than Significant & Significant and Unavoidable (for demolition of State Printing Plant only)</p>
<p>5.3-2: Implementation of the RDSP could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.</p>	<p><i>Potentially Significant</i></p>	<p>MM 5.3-2</p>	<p><i>a. Prior to any excavation, grading or other construction on the project site, and in consultation with Native American Tribes and the City's Preservation Director: a qualified archaeologist will prepare a testing plan for testing areas proposed for excavation or any other ground-disturbing activities as part of future projects, which plan shall be approved by the City's Preservation Director. Testing in accordance with that plan will then ensue by the qualified archaeologist, who will prepare a report on findings, and an evaluation of those findings, from those tests and present that report to the City's Preservation Director. Should any findings be considered as potentially significant, further archaeological investigations shall ensue, by the qualified archaeologist, and the archaeologist shall prepare reports on those investigations and evaluations relative to eligibility of the findings to the Sacramento, California or National Registers of Historic & Cultural Resources/ Places and submit that report to the City's Preservation Director and SHPO with recommendations for treatment, disposition, or reburials of significant findings, as appropriate. Also, at the conclusion of the pre-construction testing, evaluation and reports and recommendations, a decision will be made by the City's Preservation Director as to whether on-site monitoring during any project-related excavation or ground-disturbing activities by a qualified archaeologist will be required.</i></p> <p><i>b. Discoveries during construction: For those projects where no on-site archaeological monitoring was required, in the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during construction-related earth-moving activities, all work within 50 meters of the resources shall be halted, and a qualified archeologist will be consulted to assess the significance of the find. Archeological test excavations shall be conducted by a qualified archeologist to aid in determining the nature and integrity of the find. If the find is determined to be significant by the qualified archeologist,</i></p>	<p>Significant and Unavoidable</p>

			<p><i>representatives of the City and the qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation. In, a report shall be prepared by the qualified archeologist according to current professional standards.</i></p> <p><i>c. If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.</i></p> <p><i>d. If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions.</i></p> <p><i>e. In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.</i></p> <p><i>f. If a human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find, and the County Coroner, and City's Preservation Director, shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-interment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place. Work can continue on other parts of the project site while the unique archeological resource mitigation takes place.</i></p>	
<p>Cumulative 5.3-3: Implementation of the RDSP, in conjunction with other development within the Central Valley,</p>	<p><i>Significant and Unavoidable</i></p>	<p>MM 5.3-3</p>	<p><i>Mitigation Measure 5.3-2</i></p>	<p>Significant and Unavoidable</p>

could cause a substantial change in the significance of a historic or archaeological resource as defined in CEQA Guidelines Section 15064.5.				
5.4 Hazards and Hazardous Materials				
5.4-1: Construction associated with development in accordance with the RDSP could result in the exposure of people to hazards and hazardous materials during construction activities.	<i>Potentially Significant</i>	MM 5.4-1(a)	<p><i>Prior to any ground-disturbing or site construction activities associated with redevelopment of a parcel east of 12th Street, a determination shall be made by the County's Environmental Management Department (EMD) as to whether the parcel is within 1,000 feet of the following County Assessor's Parcels. In so, the applicant shall contact the County of Sacramento's Local Enforcement Agency, per Title 27, California Code of Regulations, Section 21190. The applicant shall comply with all requirements of the EMD regarding development and use of the parcel.</i></p> <ul style="list-style-type: none"> • 003-0032-008 • 003-0032-009 • 001-0160-010 • 001-0160-011 • 003-0032-012 • 003-0041-006 • 001-0170-022 • 003-00410-003 	Less than Significant
		MM 5.4-1(b)	<p><i>Prior to demolition or renovation of structures, the project applicant shall provide written documentation to the City that asbestos-containing materials and/or lead-based paint have been abated and that any remaining hazardous substances and/or waste have been removed in compliance with application State and local laws.</i></p>	
5.4-2: Implementation of the RDSP could result in the exposure of people to hazards and hazardous materials.	<i>Less than Significant</i>	MM 5.4-2	<i>None required</i>	Less than Significant
5.5 Hydrology and Water Quality				
5.5-1: Development of the RDSP would result in	<i>Less than Significant</i>	MM 5.5-1	<i>None required</i>	Less than Significant

construction activities that could degrade water quality by increasing the amount of sediments and other contaminants entering rivers.				
5.5-2: Development of the RDSP could generate new sources of polluted runoff that could violate water quality standards.	<i>Less than Significant</i>	MM 5.5-2	<i>None required</i>	<i>Less than Significant</i>
5.5-3: Implementation of the RDSP could increase exposure of people and/or property to risk of injury and damage from a 100-year flood.	<i>Less than Significant</i>	MM 5.5-3	<i>None Required</i>	<i>Less than Significant</i>
Cumulative 5.5-4: Implementation of the RDSP, in addition to other projects in the watershed, could result in the generation of polluted runoff that could violate water quality standards or waste discharge requirements for receiving waters.	<i>Less than Significant</i>	MM 5.5-4	<i>None required</i>	<i>Less than Significant</i>
<i>5.6 Noise and Vibration</i>				
5.6-1: Implementation of the RDSP could result in exterior noise levels that are above the upper value of the normally acceptable category for various land uses due to	<i>Potentially Significant</i>	MM 5.6-1	<i>Future development projects in the RDSP Area consisting of noise sensitive receptors shall have an acoustical and vibration analysis prepared to measure any potential project specific noise and/or vibration impacts and identify specific noise attenuation features to reduce impacts associated with exterior noise to a less than significant level consistent with the Policies of the General Plan.</i>	<i>Significant and Unavoidable</i>

an increase in noise levels.				
5.6-2: Implementation of the RDSP could result in residential interior noise levels of Ldn 45 or greater caused by an increase in noise levels.	<i>Significant</i>	MM 5.6-2	<i>Implement Mitigation Measure 5.6-1</i>	Significant and Unavoidable
5.6-3: Construction of the development in accordance with the RDSP could result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance.	<i>Potentially Significant</i>	MM 5.6-3	<p><i>The contractor shall ensure that the following measures are implemented during all phases of construction.</i></p> <ul style="list-style-type: none"> • <i>Whenever construction occurs near residential or other noise-sensitive uses (on or offsite), temporary barriers shall be constructed around the construction site to shield the ground floor and lower stories of the noise-sensitive uses. The barriers shall be of 3/4-inch Medium Density Overlay (MDO) plywood sheeting, or other material of equivalent utility and appearance, and shall achieve a Sound Transmission Class of STC-30, or greater, based on certified sound transmission loss data taken according to ASTM Test Method E90, or as approved by the City of Sacramento Building Official. The barrier shall not contain any gaps at its base or face, except for site access and surveying openings. The barrier height shall be designed to break the line of sight and provide at least a 5 dBA insertion loss between the noise producing equipment and the upper-most</i> • <i>Construction equipment staging areas shall be located as far as feasible from residential areas while still serving the needs of construction contractors.</i> • <i>Quieter “sonic” pile-drivers shall be used unless engineering studies are submitted to the City that show this is not feasible and cost-effective, based on geotechnical considerations.</i> 	Less than Significant
5.6-4: Implementation of the RDSP could result in existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities	<i>Significant</i>	MM 5.6-4	<p><i>Implement Mitigation Measure 5.6-3 and;</i></p> <ul style="list-style-type: none"> a) <i>During construction, should damage occur despite the above mitigation measures, construction operations shall be halted and the problem activity shall be identified. A qualified engineer shall establish vibration limits based on soil conditions and the types of buildings in the immediate area. The contractor shall monitor the buildings throughout the remaining construction period and follow all recommendations of the qualified engineer to repair any</i> 	Significant and Unavoidable

<p>greater than 0.5 inches per second due to project construction.</p>			<p>damage that has occurred to the pre-existing state, and to avoid further structural damage.</p> <p>b) Prior to individual development projects, the applicant shall have a certified vibration consultant prepare a site-specific vibration analysis for residential uses and historic structures that are within the screening distance (shown in Figure 5.6-3) for freight and passenger trains or light rail trains. The analysis shall detail how the vibration levels at these receptors would meet the applicable vibration standards to avoid potential structural damage and annoyance. The results of the analysis shall be incorporated into project design.</p>	
<p>5.6-5: Implementation of the RDSP could result in adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.</p>	<p><i>Significant</i></p>	<p>MM 5.6-5</p>	<p>Implement Mitigation Measure 5.6-4b.</p>	<p><i>Less than Significant</i></p>
<p>5.6-6: Implementation of the RDSP could result in exposure of historic buildings and archaeological sites to vibration-peak-particle velocities greater than 0.25 inches per second due to project construction, highway traffic, and rail operations.</p>	<p><i>Significant</i></p>	<p>MM 5.6-6</p>	<p>Implement Mitigation Measure 5.6-4 and 5.6-5</p>	<p><i>Less than Significant</i></p>
<p>5.6-8: Implementation of the RDSP could result in cumulative construction</p>	<p><i>Significant</i></p>	<p>MM 5.6-8</p>	<p>Implement Mitigation Measures 5.6-3 and 5.6-4</p>	<p><i>Less than Significant</i></p>

noise and vibration levels that exceed the standards in the City of Sacramento Noise Ordinance as well as vibration-peak-particle velocities greater than 0.5 inches per second.				
5.6-9: Implementation of the RDSP could result in cumulative impacts on adjacent residential and commercial areas exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.	<i>Significant</i>	MM 5.6-9	<i>Implementation of Mitigation Measure 5.6-4(b)</i>	<i>Less than Significant</i>
5.7 Parks and Open Space				
5.7-1: Implementation of the RDSP along with other development in the region could result in an increase in interior and exterior noise levels in the Policy Area that are above acceptable levels.	<i>Less than significant</i>		<i>None required.</i>	<i>Less than Significant</i>
Cumulative 5.7-2: Implementation of the RDSP, in addition to other development within the City, could cause or accelerate a substantial physical deterioration of existing area parks or recreational facilities.	<i>Less than Significant</i>	MM 5.7-5	<i>None required.</i>	<i>Less than Significant</i>

5.8 Public Services				
5.8-1: Implementation of the RDSP could result in the need to construct new, or expand existing, facilities related to the provision of police protection.	<i>Less than Significant</i>	MM 5.8-1	<i>None required.</i>	<i>Less than Significant</i>
Cumulative 5.8-2: Implementation of the RDSP ,combined with full buildout of the City in accordance with the 2030 General Plan, could result in the need to construct new, or expand existing, facilities related to the provision of police protection.	<i>Less than Significant</i>	MM 5.8-2	<i>None required</i>	<i>Less than Significant</i>
5.8-3: Implementation of the RDSP could result in the need to construct new, or expand existing, facilities related to the provision of fire protection.	<i>Less than Significant</i>	MM 5.8-3	<i>None required.</i>	<i>Less than Significant</i>
Cumulative 5.8-4: Implementation of the RDSP ,combined with full buildout of the City in accordance with the 2030 General Plan, could result in the construction of new, or the expansion of existing, facilities related to the provision of fire	<i>Less than Significant</i>	MM 5.8-4	<i>None required.</i>	<i>Less than Significant</i>

protection.				
5.8-5: Implementation of the RDSP would generate new students that would exceed the design capacity of existing or planned schools and could result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts.	<i>Less than Significant</i>	MM 5.8-5	<i>None required.</i>	<i>Less than Significant</i>
Cumulative 5.8-6: Implementation of the RDSP combined with other development within the seven school districts that serve the City, would generate additional elementary, middle, and high school students.	<i>Less than Significant</i>	MM 5.8-6	<i>None required.</i>	<i>Less than Significant</i>
5.9 Public Utilities				
5.9-1: Implementation of the RDSP could result in an increase in demand for potable water in excess of the City's existing diversion and treatment capacity and could require the construction of new water supply facilities.	<i>Less than significant</i>	MM 5.9-1	<i>None required.</i>	<i>Less than Significant</i>
5.9-2: Implementation of the RDSP could require expansion of wastewater	<i>Less than significant</i>	MM 5.9-2	<i>None required.</i>	<i>Less than Significant</i>

treatment facilities.				
5.9-3: Implementation of the RDSP could require expansion of storm drainage facilities.	<i>Less than significant</i>	MM 5.9-3	<i>None required.</i>	<i>Less than Significant</i>
5.9-4: Implementation of the RDSP could generate additional water or wastewater flows that could require the expansion of existing conveyance or collection facilities.	<i>Less than significant</i>	MM 5.9-4	<i>None required.</i>	<i>Less than Significant</i>
Cumulative 5.9-5: Implementation of the RDSP, in combination with future development in the lower Sacramento River watershed, could increase the demand for storm drainage infrastructure.	<i>Less than significant</i>	MM 5.9-5	<i>None required.</i>	<i>Less than Significant</i>
5.10 Transportation and Circulation				
5.10-1: Implementation of the RDSP could result in potentially significant impact at study intersections in 2015.	<i>Potentially Significant</i>	MM 5.10-1	(a) <i>At the I-5 southbound ramps / Richards Boulevard intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact would require adding a third lane to the southbound on-ramp and modification of the westbound approach to provide two left-turn lanes and one left-through lane (with split phasing for east and westbound traffic), which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way for a new vehicle travel lane; this right of way is currently unavailable. The City, in coordination with Caltrans, is in the process of preparing a Project Study Report for this interchange and the final lane configurations will be an element of that study.</i>	<i>Significant and Unavoidable</i>

		<p><i>The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure and the changes at the adjacent intersection of Richards Boulevard and the I-5 northbound ramps, the level of service would be maintained at LOS C (23.9 seconds delay) in the a.m. peak hour, and remain at LOS F (83.5 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.</i></p> <p><i>(b) At the I-5 northbound ramps / Richards Boulevard intersection, modify/ restripe the eastbound approach to provide two left-turn lanes and two through lanes and adjust the signal timing. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>The City, in coordination with Caltrans, is in the process of preparing a Project Study Report for this interchange and the final lane configurations will be an element of that study.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be LOS D (50.4 seconds delay) in the a.m. peak hour and improved to LOS E (73.4 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.</i></p> <p><i>(c) At the 3rd Street / Richards Boulevard intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. With implementation of this mitigation measure, the level of service would be improved to LOS E (68.0 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.</i></p> <p><i>(d) At the Vine Street / Richards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To fully mitigate impacts would require</i></p>	
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		<p><i>installation of a new traffic signal, however, considering that Richards Boulevard will be realigned, and this intersection would no longer existing under the buildout conditions, major investments to improve short-term conditions is not financially feasible.</i></p> <p><i>(e) At the 12th Street / 16th Street / Richards Boulevard intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS E (67.8 seconds delay) in the a.m. peak hour and would remain at LOS F (285.1 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.</i></p> <p><i>(f) At the 7th Street / North B Street intersection, add one eastbound left-turn lane to provide one left-turn lane and one through-right turn lane; modify the westbound approach lanes to provide one left-turn lane and one through-right turn lane; add one northbound right-turn lane to provide one left-through lane and one right-turn lane; provide protected left-turning movements for the eastbound and westbound left-turn lanes and provide split phasing for the northbound and southbound movements; and optimize signal timing. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact to a less than significant level would require widening streets and result in significant property impacts.</i></p> <p><i>The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by</i></p>	
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			<p><i>the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would remain at LOS F (139.7 seconds delay) in the a.m. peak hour and would be improved to LOS E (59.7 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.</i></p> <p><i>(g) At the 12th Street / North B Street intersection, mitigation of impacts to less-than-significant is not feasible. To fully mitigate impacts would result in significant property impacts and require widening 12th Street and N. B Street. No feasible mitigation measures were identified at this intersection.</i></p> <p><i>(h) At the 16th Street / North B Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be remain at LOS F (82.0 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.</i></p> <p><i>(i) At the 14th Street / F Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. With implementation of this mitigation measure, the level of service would improved to LOS D (44.6 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.</i></p> <p><i>(j) At the 16th Street / H Street intersection, the RDSP Finance Plan shall pay</i></p>	
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			<p><i>City's Traffic Operations Center to monitor and adjust the signal timing when needed. With implementation of this mitigation measure, the level of service would improved to LOS D (49.2 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.</i></p> <p><i>(k) At the 5th Street / I Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. With implementation of this mitigation measure, the level of service would improved to LOS C (21.8 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.</i></p> <p><i>(l) At the 6th Street / I Street intersection, prohibit parking during the p.m. peak hour for 100 feet along the right side of westbound I Street to provide one combination through-left lane, two through lanes, and one-combination through-right turn lane; modify the northbound lanes to provide one left-turn lane and two through lanes; and optimize signal timing.</i></p>	
5.10-2: Implementation of the RDSP could result in potentially significant impact on study roadway segments in 2015.	<i>See Table 5.10-19</i>		<i>None available</i>	<i>Significant and Unavoidable</i>
5.10-3: Implementation of the RDSP could result in potentially significant impact on study freeway mainline segments in 2015.	<i>Potentially Significant</i>		<i>None available</i>	<i>Significant and Unavoidable</i>
5.10-4: Implementation of the RDSP could result in potentially	<i>Potentially Significant</i>		<i>Prior to building permit, each developer shall pay the I-5 impact fee that is in effect at the time of the issuance of building permit.</i>	<i>Significant and Unavoidable</i>

significant impact on study freeway interchanges in 2015.				
5.10-5: Implementation of the RDSP could result in potentially significant impact on study freeway off-ramp queues in 2015.	<i>See Table 5.10-22</i>	MM 5.10-5	<i>Implement MM 5.10-1(a)</i>	<i>Significant and Unavoidable</i>
5.10-6: Implementation of the RDSP could adversely affect transit facilities in 2015.	<i>Less than Significant</i>	MM 5.10-6	<i>None required</i>	<i>Less than Significant</i>
5.10-7: Implementation of the RDSP could adversely affect bicycle facilities in 2015.	<i>Less than Significant</i>	MM 5.10-7	<i>None required.</i>	<i>Less than Significant</i>
5.10-8: Implementation of the RDSP could adversely affect pedestrian facilities in 2015.	<i>Less than Significant</i>	MM 5.10-8	<i>None required.</i>	<i>Less than Significant</i>
5.10-9: Implementation of the RDSP could adversely affect parking facilities in 2015.	<i>Less than Significant</i>	MM5.10-9	<i>None required.</i>	<i>Less than Significant</i>
5.10-10: Implementation of the RDSP could result in potentially significant impact at study	<i>Potentially Significant</i>	MM 6.11-2	<i>(a) At the I-5 southbound ramps / Richards Boulevard intersection, add a third westbound left-turn lane approximately 100 feet in length; modify the eastbound approach lanes to provide one through lane, one through-right turn lane, and one right-turn lane; and optimize signal timing. To accommodate these modifications without widening proposed roadways modifications at the adjacent I-5 northbound ramps are required. At the I-5 northbound ramps / Richards Boulevard intersection, the City shall reduce the length of the eastbound</i>	<i>Significant and Unavoidable</i>

<p>intersections in 2035.</p>			<p><i>left-turn lane to approximately 100 feet; convert one eastbound through lane to a second left-turn lane; and optimize signal timing. The City, in coordination with Caltrans, is in the process of preparing a Project Study Report for this interchange and the final lane configurations will be an element of that study.</i></p> <p><i>The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be maintained at LOS C (25.1 seconds delay) in the a.m. peak hour and would be improved to LOS E (75.0 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-24. At the I-5 northbound ramps / Richards Boulevard intersection, the level of service would be LOS D (45.2 seconds delay) in the a.m. peak hour and would be improved to LOS D (44.8 seconds delay) in the p.m. peak hour.</i></p> <p><i>(b) At the Bercut Drive / Richards Boulevard intersection, provide two left-turn lanes and a left-through-right turn lane; modify the southbound lanes to provide a right-turn lane and a combination left-through-right turn lane; and optimize signal timing. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact would require adding a lane to Richards Boulevard and/or Bercut Drive, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. The City, in coordination with Caltrans, is in the process of preparing a Project Study Report for this interchange and the final lane configurations will be an element of that study.</i></p> <p><i>The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be maintained at LOS D (45.6 seconds delay) in the a.m. peak hour, and would remain at LOS F (107.8 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-24.</i></p>	
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		<p>(c) <i>At the North 4th Street / Richards Boulevard intersection, provide two northbound left-turn lanes, and one through-right turn lane; add one westbound right-turn lane with overlap signal phasing, to provide one left-turn, two through lanes, and one right-turn lane; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS E (78.7 seconds delay) in the a.m. peak hour, and would be improved to LOS E (74.2 seconds delay) in the p.m. peak hour.</i></p> <p>(d) <i>At the 5th Street / Richards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.</i></p> <p>(e) <i>At the 7th Street / Richards Boulevard intersection, modify the eastbound approach to provide two left-turn lanes, one through lane, and one through-right turn lane; add lanes to the northbound approach to provide two-let-turn lanes, two through lanes, and one right-turn lane with overlap signal phasing; increase the traffic signal cycle length from 100 to 150 seconds during both the a.m. and p.m. peak hours; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS D (53.4 seconds delay) in the a.m. peak hour, and would be improved to LOS E (79.6 seconds delay) in the p.m. peak hour.</i></p> <p>(f) <i>At the Street W / Richards Boulevard intersection, the RDSP Finance Plan shall include the cost to modify the eastbound approach to add one northbound right-turn lane to provide one left-turn lane, one through lane, and one right-turn lane; monitor and adjust the signal timing when needed.</i></p>	
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		<p><i>With implementation of this mitigation measure, the level of service would be maintained at LOS E (77.5 seconds delay) in the a.m. peak hour, and would be improved to LOS E (78.5 seconds delay) in the p.m. peak hour.</i></p> <p><i>(g) At the 12th Street / Richards Boulevard intersection, the RDSP Finance Plan shall include the cost to remove one westbound through lane and add one eastbound through lane, this could be accomplished without widening the street; monitor and adjust the signal timing when needed.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS C (25.7 seconds delay) in the a.m. peak hour, and would be improved to LOS D (48.9 seconds delay) in the p.m. peak hour.</i></p> <p><i>(h) At the 16th Street / Richards Boulevard intersection, the RDSP Finance Plan shall include the cost to remove one westbound through lane west of the intersection to add one eastbound left-turn lane, this could be accomplished without widening the street; monitor and adjust the signal timing when needed. Mitigation of impacts to less-than-significant is not feasible, To mitigate the impact would require adding lanes to some or all of the intersecting roadways, including the American River Bridge, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS B (15.8 seconds delay) in the a.m. peak hour, and would be LOS F (99.9 seconds delay) in the p.m. peak hour.</i></p> <p><i>(i) At the Vine Street / Street W intersection, add one northbound right-turn lane to provide one left-through-right turn lane, and one right-turn lane; add one southbound left-turn lane to provide one left-turn lane, one left-through-right turn lane; add one eastbound through lane to provide one left-turn lane, one through lane, one through-right turn lane; provide a fully actuated traffic signal; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance</i></p>	
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		<p><i>of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS D (40.9 seconds delay) in the a.m. peak hour, and would be improved to LOS E (63.2 seconds delay) in the p.m. peak hour.</i></p> <p><i>(j) At the Vine Street / 12th Street intersection, add two eastbound through lanes to provide three through lanes, one through-right turn lane; convert Vine Street to one-way eastbound between 12th Street and 16th Street, there would be no road widening in this section; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS D (51.4 seconds delay) in the a.m. peak hour, and would be improved to LOS D (53.0 seconds delay) in the p.m. peak hour.</i></p> <p><i>(k) At the 16th Street / Vine Street intersection, convert Vine Street to one-way eastbound between 12th Street and 16th Street and add one eastbound left-turn lane, this could be accomplished without widening the street. Mitigation of impacts to less-than-significant is not feasible, To mitigate the impact would require adding lanes to some or all of the intersecting roadways, including the American River Bridge, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS B (18.9 seconds delay) in the a.m. peak hour, and would remain at LOS F (361.2 seconds delay) in the p.m. peak hour.</i></p> <p><i>(l) At the 7th Street / North B Street intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General</i></p>	
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			<p><i>seconds delay) in the p.m. peak hour.</i></p> <p><i>(p) At the Abern Street / North B Street intersection, convert eastbound left-through lane to a left-turn only lane to provide one left-turn lane and one through-right turn lane; convert the westbound left-through lane to a left-turn only lane to provide one left-turn lane and one through-right turn lane; monitor and adjust the signal timing when needed. Mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS E (58.0 seconds delay) in the a.m. peak hour, and would remain at LOS F (109.1seconds delay) in the p.m. peak hour.</i></p> <p><i>(q) At the 5th Street / Railyards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.</i></p> <p><i>(r) At the 7th Street / Railyards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.</i></p> <p><i>(s) At the 10th Street / Railyards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of</i></p>	
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			<p><i>the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.</i></p> <p><i>(t) At the 10th Street / C Street intersection, add one left-turn lane to provide one left-turn lane and one through-right turn lane to southbound, eastbound and westbound approaches; provide leading protected left-turn phase for southbound approach; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS D (48.0 seconds delay) in the a.m. peak hour, and would be improved to LOS E (66.3 seconds delay) in the p.m. peak hour.</i></p> <p><i>(u) At the 14th Street / C Street intersection, install a new traffic signal at the time when one or more warrants are satisfied; provide one northbound right-turn lane by prohibiting on-street parking for 150 feet during the p.m. peak hour. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS B (15.3 seconds delay) in the a.m. peak hour, and would be improved to LOS E (65.8 seconds delay) in the p.m. peak hour.</i></p> <p><i>(v) At the 16th Street / C Street intersection, convert the eastbound through lane to a left-through lane to provide one left-turn lane and one through-left lane; provide split signal phasing for eastbound and westbound traffic movements; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS C (20.4 seconds delay) in the a.m. peak hour, and would be improved to LOS E</i></p>	
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		<p>(72.1 seconds delay) in the p.m. peak hour.</p> <p>(w) <i>At the 7th Street / F Street intersection, modify the northbound and southbound approaches to provide one left-turn lane and one through-right turn lane; modify the westbound lanes on F Street to provide one left-through lane and one right-turn lane; provide permitted left-turn signal phasing for the east and westbound movements; provide overlap signal phasing for the westbound right turn movement; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS C (26.5 seconds delay) in the a.m. peak hour, and would remain at LOS F (106.2 seconds delay) in the p.m. peak hour.</i></p> <p>(x) <i>At the 10th Street / F Street intersection, install a traffic signal at the time when one or more warrants are satisfied. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS B (12.3 seconds delay) in the a.m. peak hour, and would be improved to LOS D (48.5 seconds delay) in the p.m. peak hour.</i></p> <p>(y) <i>At the 14th Street / F Street intersection, add one southbound left-turn to provide one left-turn lane and one through-right turn lane, this would require converting the angle parking to parallel parking on the east side of 14th Street north of F Street; provide leading, protected-permitted signal phasing for the southbound left turn movement; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits. Mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require significant removal of parking to add traffic lanes.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS C (28.7 seconds delay) in the a.m. peak hour, and would remain LOS F (88.8</i></p>	
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		<p><i>seconds delay) in the p.m. peak hour.</i></p> <p><i>(z) At the 7th Street / G Street intersection, modify westbound lanes to provide one left-turn lane, one through lane and one right-turn lane; provide permitted phasing for the northbound left turn movement; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits. Mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be maintained at LOS D (39.9 seconds delay) in the a.m. peak hour, and would remain at LOS F (132.2 seconds delay) in the p.m. peak hour.</i></p> <p><i>(aa) At the 5th Street / H Street intersection, add one northbound right-turn lane to provide one left-turn lane, one through lane and one right-turn lane; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS D (40.5 seconds delay) in the a.m. peak hour, and would be improved to LOS E (74.7 seconds delay) in the p.m. peak hour.</i></p> <p><i>(bb) At the 6th Street / H Street intersection, provide protected signal phasing for the southbound left turn movement. Mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require a fully actuated traffic signal, which is not consistent with signal operations of intersections in the area.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be LOS D (38.6 seconds delay) in the a.m. peak hour, and would remain at LOS F (128.4 seconds delay) in the p.m. peak hour.</i></p>	
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		<p>(cc) <i>At the 16th Street / H Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to increase the signal cycle length to 100 seconds and re-optimize signal splits during the p.m. peak hour.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be improved to LOS E (61.9 seconds delay) in the p.m. peak hour.</i></p> <p>(dd) <i>At the Jibboom Street / I Street intersection, to mitigate the impact would require widening of the existing and/or proposed elevated bridge structures to add vehicle lanes to increase vehicle capacity, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.</i></p> <p>(ee) <i>At the 5th Street / I Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be maintained at LOS C (22.5 seconds delay) in the a.m. peak hour, and would be improved to LOS E (57.8 seconds delay) in the p.m. peak hour.</i></p> <p>(ff) <i>At the 6th Street / I Street intersection, prohibit parking during the p.m. peak hour for 100 feet along the right side of westbound I Street to provide one through-left lane, two through lanes, and one through-right turn lane; modify the northbound approach to provide one left-turn lane and two through lanes; monitor and adjust the signal timing when needed.</i></p> <p><i>With implementation of this mitigation measure, the level of service would be maintained at LOS D (36.7 seconds delay) in the a.m. peak hour, and would be improved to LOS E (68.6 seconds delay) in the p.m. peak hour.</i></p> <p>(gg) <i>At the 3rd Street / J Street intersection, modify the southbound I-5 off-ramp approach to the intersection to provide one left-through lane, two through lanes, and one right-turn lane. Mitigation of impacts to less-than-significant is not feasible. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The</i></p>	
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			<p><i>fair share contribution shall be collected by the City prior to the issuance of building permits. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.</i></p> <p><i>With implementation of this mitigation measure, the level of service would remain at LOS F (113.4 seconds delay) in the a.m. peak hour, and would be maintained at LOS D (37.9 seconds delay) in the p.m. peak hour.</i></p>	
5.10-11: Implementation of the RDSP could result in potentially significant impact on study roadway segments in 2035.	<i>Potentially Significant</i>	MM 5.10-11	<i>None available</i>	Significant and Unavoidable
5.10-12: Implementation of the RDSP could result in potentially significant impact on study freeway mainline segments in 2035.	<i>Potentially Significant</i>	MM 5.10-12	<i>None available</i>	Significant and Unavoidable
5.10-13: Implementation of the RDSP could result in potentially significant impact on study freeway interchanges in 2035.	<i>Potentially Significant</i>	MM 5.10-13	<i>Prior to building permit, each developer shall pay the I-5 impact fee that is in effect at the time of the issuance of building permit.</i>	Significant and Unavoidable
5.10-14: Implementation of the	<i>Potentially Significant</i>	MM 5.10-14	<i>Implement MM 5.10-2(gg)</i>	Significant and

RDSP could result in potentially significant impact on study freeway off-ramp queues in 2035.				<i>Unavoidable</i>
5.10-15: Implementation of the RDSP could adversely affect transit facilities in 2035.	<i>Less than Significant</i>	MM 5.10-15	<i>None required</i>	<i>Less than Significant</i>
5.10-16: Implementation of the RDSP could adversely affect bicycle facilities in 2035.	<i>Less than Significant</i>	MM 5.10-16	<i>None required</i>	<i>Less than Significant</i>
5.10-17: Implementation of the RDSP could adversely affect pedestrian facilities in 2035.	<i>Less than Significant</i>	MM 5.10-17	<i>None required</i>	<i>Less than Significant</i>
5.10-18: Implementation of the RDSP could adversely affect parking facilities in 2035.	<i>Less than Significant</i>	MM 5.10-18	<i>None required</i>	<i>Less than Significant</i>

CHAPTER 3: PROJECT DESCRIPTION

Chapter 3

Project Description

Currently, the River District area is a mix of underutilized and underdeveloped parcels, large parcels, and parcels with incompatible adjacent land uses, encompassing approximately 748 acres of land. The proposed River District Specific Plan project (RDSP) (Specific Plan) would establish planning and development standards for the redevelopment of the area. The goal of the proposed project is to master plan the district as a transit-oriented, urban neighborhood that supports a mix of uses with parcels ready for development. To meet this goal, the RDSP would lay the policy and implementation framework for the evolution of the Plan area from a primarily light-industrial, low-intensity district, to a cohesive district with a mix of residential, commercial, industrial, public, and open space uses. The Specific Plan would provide the general vision and broad policy concepts to guide development of a new neighborhood.

The RDSP is consistent with the City's 2030 General Plan and provides area-specific development policies that address the unique aspects of the River District. The proposed RDSP is a long range policy and planning document that is intended to guide development in the Specific Plan area over the next 25 years. The Specific Plan would serve to guide future decisions regarding land use, intensity of development, circulation, public spaces, urban design, and the necessary infrastructure improvements to support future development. Finally, the Plan would identify the resources necessary to finance and implement the public improvements and infrastructure needed to support the vision for the new Specific Plan area.

This project would also provide the backbone infrastructure necessary for development of individual parcels in accordance with the Specific Plan. No parcels would be developed as part of this Proposed Project. Instead the individual parcel owners would develop their parcels in accordance with the Specific Plan.

Definition of a Specific Plan

Under California Law, cities may adopt specific plans to develop policies, programs, and regulations to implement the General Plan. A specific plan serves as a bridge between the General Plan, a community plan, the Zoning Code, and individual planned unit developments or other large development projects. The proposed River District Specific Plan includes the following information:

- the distribution, location, and extent of all land uses, including open space;
- the proposed distribution and location of major components of public infrastructure, such as transportation and utilities, and other essential facilities to support the land uses;
- standards and criteria which specify how the development of the River District area will proceed;
- a discussion of the consistency between the RDSP and the goals and policies in the General Plan; and
- a program of implementation measures, such as regulations, programs, public works projects, and financing measures necessary to complete the essential facilities to allow for the development of the Plan area.

The RDSP will address zoning, infrastructure, circulation, parks and open space, and urban design. The financing plan will set development impact fees, and a nexus study will examine the costs of the public infrastructure and fairly distribute those costs between development in the downtown, Railyards Specific Plan, and River District.

Project Location

The RDSP is located just north of the downtown and within the Central City Community Plan Area (see Figure 3-1). The Specific Plan area is generally bounded by the American River to the north, the Sacramento River to the west, the previously-approved Railyards Specific Plan area to the south, and the 16th Street Corridor to the east.

Project Background

The Specific Plan area coincides with the River District Redevelopment Area (RDRA) boundaries, which was established as the Richards Boulevard Redevelopment Area (RBRA) in 1990. In 2007, the RBRA was renamed the River District Redevelopment Area. Lying within the boundaries of the proposed RDSP boundary is the Discovery Centre Planned Unit Development. If approved, the RDSP would supersede the previous planning efforts.

In addition to the RBRA, some of the individual parcels within the RDSP area had previous planning efforts approved for development. The Specific Plan assumes development of these sites in accordance with the previously-approved land uses and densities).

- Township 9: a 65-acre mixed-use development. Groundbreaking was in Summer 2009, with construction beginning on the first housing units in 2011. This project proposed 2,300 dwelling units (in a mix of apartments, condominiums, townhomes, and live/work spaces); 150,000 square feet of retail; and over 800,000 square feet of office space. This Planned Unit Development has its own Development Guidelines, which will guide development within the Township (T-9) Planned Unit Development (PUD) boundaries. The project is consistent with the proposed RDSP.
- Continental Plaza: a PUD established in 1996 and currently entitled for approximately 1.1 million square feet of office uses, of which 300,000 square feet are already built and occupied by the headquarters of the California Highway Patrol. The California State Lottery headquarters, another State office located in the River District, plans to expand the campus on its 12.7 acre parcel, with construction beginning in 2010. The development of the complex is governed by planned unit development guidelines.
- Powerhouse Science Center is currently undergoing processing and approval, with its own environmental review. This project will develop a learning center on Jibboom Street at the site of the historic PG& E Power Plant.
- New Light Rail Station: the new Green Line will connect Richards Boulevard with downtown, Natomas, and the Sacramento Airport. The first phase is construction of a station at the intersection of North 7th Street and Richards Boulevard. Completion of the station is anticipated in 2011.

Existing Setting

The proposed project area is currently urbanized with scattered undeveloped parcels (See Figure 3-2).

The topography of the RDSP area is generally flat, with the exception of the levees along the American and Sacramento Rivers and the secondary levee separating the RDSP area from the south. These two rivers are the only water features within the proposed project area.

Because the proposed Specific Plan includes all of the individual parcels comprising the Plan area, the exhibits of the Plan area show the northern and western boundaries to the centerlines of the two adjoining rivers. The RDSP does not propose any development or improvements on the water sides of the levees. Therefore, this EIR does not include analyses of potential environmental effects of disturbance or development in the riparian areas.

Interstate 5 and State Route 160 traverse the RDSP area. In addition, there are several major City streets within the Specific Plan area (Richards Blvd, 7th Street, 12th Street, 16th Street, and Dos Rios Street).

Light rail lines for Regional Transit are located in 12th Street and are currently being installed in 7th Street. Heavy rail lines, owned by the Union Pacific Railroad, border the RDSP area on a portion of the southern boundary.

As shown on Figures 3-3 and 3-4, the RSDP area is currently designated with a variety of General Plan and zoning categories. The entire project area is located within the City's Central City Community Plan area.

The majority of the approximately 400 parcels within the RDSP area are developed. The parcels are owned by approximately 200 property owners. Table 3.1 shows the existing development types and amounts.

Table 3.1							
Existing and Previously Approved Land Uses							
	Residential (dwelling units)	Civic/ Institutional (sf)	Office (sf)	Commercial /Retail (sf)	Light Industrial (sf)	Hotel (rooms)	Parks (ac)
Existing	386	103,029	1,312,000	384,000	5,070,000	1,006	16
Previously Approved Development¹	2,350		2,380,000	154,400	0	0	12 - 15
Total	2,736	103,029	3,692,000	538,400	5,070,000	1,006	28 - 31
<i>Notes</i>							
<i>1. The developments included are Township 9, Continental Plaza, and the Lottery Expansion.</i>							

There are five private national and local social service providers located within the RDSP. In addition, the Sacramento Housing and Redevelopment Agency owns the 218-unit Dos Rios Housing Project to provide affordable housing.

Three government agencies own and operate facilities within the RDSP area. The State of California has four facilities, the County has two, and the City of Sacramento has one. The headquarters and interim substation for the City's Police Department is located in a portion of the City's building.

The Specific Plan area has several structures that could be eligible for listing in the national Register of Historic Places, California Register of Historic Resources or the Sacramento Register of Historic and Cultural Resources. In addition, there are over 20 buildings, railroad spurs, and features within street rights of way eligible as contributing resources for a historic district.

Proposed Project Elements

The Specific Plan would work in conjunction with four documents to provide development regulations and policies:

1. The 2030 General Plan, the City’s overarching planning document
2. River District Special Planning District Ordinance, which implements to Specific Plan principles, goals and policies through zoning
3. The River District Design Guidelines, which provide guidance for projects regarding the aesthetic form and functional quality of development
4. The ordinance adding historic landmarks and the North 16th Street Historic District to the Sacramento Register of Historic and Cultural Resources

Developers undertaking projects in the RDSP area must consult with each of these documents prior to undertaking construction or development projects.

The Plan does not propose development of lands on the river side of the levees; therefore, this EIR does not include that area in the analyses or project description.

During the course of preparing the River District Specific Plan, a number of land use assumptions were made for future development, based in part, on a market study. The assumptions pertain to a distribution of land uses and proposed intensities by block. The assumptions are not meant to be prescriptive by block, but rather, act as a tool to envision an overall level of development within the Specific Plan area. Table 3.2 shows the development assumptions used in this environmental analysis.

Table 3.2							
Assumed Land Uses at Full Buildout of RDSP (Year 2035)							
	Residential (dwelling units)	Civic/ Institutional (sf)	Office (sf)	Commercial /Retail (sf)	Light Industrial (sf)	Hotel (rooms)	Parks (ac)
Existing/Previously Approved¹	2,736	103,029	3,692,000	538,400	5,070,000	1,006	28 - 31
Development that Could Occur due to RDSP	5,408	0	264,000	315,600	-3,607,000 ²	2,038	27
Total	8,144	103,029	3,956,000	854,000	1,463,000	3,044	55 - 58
<i>Notes</i>							
1. See Table 3.1							
2. Over time as the Specific Plan is implemented, the total square footage of industrial uses within the plan area is anticipated to be reduced.							

As shown in the above table, the proposed RDSP would result in an increase in the various amounts of land uses, with the exception of industrial uses. The RDSP would prohibit the establishment of new industrial uses.

The amount of development within the Specific Plan Area would be regulated by the following two rules:

1. Maximum development densities and intensities established through specification of maximum dwelling units per net acre (du/na) or floor to area ratio (FAR) calculations for development in each land use designation.

2. Specification of the maximum total development amount within the entire Plan Area for each of the land use type.

The restrictions on development, including land use and zoning, density and height standards, building setbacks, and parking regulations, would be implemented under the proposed River District Specific Plan. These regulations would apply to all areas within the Specific Plan area unless otherwise stated in a previously-approved PUD such as Township 9 or Continental Plaza. Both the Township 9 and Continental Plaza PUDs are consistent with the proposed RDSP.

Subareas

The proposed RDSP area is divided into six distinct subareas that illustrate both the historical patterns of development in the area and anticipate future development (see Figure 3-5). All analyses in the technical chapters include all six subareas.

Jibboom Street Area. This subarea is located between Interstate-5 and the Sacramento River and along Jibboom Street from the Railyards Specific Plan development to the American River. The area is currently developed with a number of hotels, highway-oriented commercial businesses, and the historic former PG&E power plant (currently proposed for a learning center). Robert T. Matsui Waterfront Park is located at the southern edge of the district. The area has a direct connection to Old Sacramento from the Sacramento River Parkway, via an off-street bike trail along the Sacramento River.

The Specific Plan vision for this area is as a destination for tourists and other visitors, with a concentration of hotels, restaurants, and entertainment venues. The area is expected to retain its service commercial uses, catering to the traveling public. Buildings along the Sacramento riverfront are expected to take advantage of the view of the river through increased height and convenient riverfront access.

North 4th Street Area. This area is located east of Interstate 5, west of North 5th Street and north of Richards Boulevard to the American River. The area is currently characterized by the development of single-story, small tenant offices and warehouse uses. There is a mix of local serving and highway serving commercial uses, including restaurants and a service station.

The Specific Plan vision for the area is one that takes advantage of the District's proximity to the future light rail transit station, to be located on North 4th Street. This station would be the on the future Green Line. The station and its surrounding area will be defining features of this subarea, including a pedestrian plaza surrounded by a transit-supportive mix of office and residential uses, along with local and visitor-serving retail and commercial uses.

North 7th Street Area. The North 7th Street area includes the Township 9 Planned Unit Development (PUD) project site, the Continental Plaza PUD and the State Lottery and is located between North 5th Street and North 10th Street north of Richards Boulevard to the American River.

The City Council approved the Township 9 PUD in August 2007. When built out, it will be a dense development of 2,350 residential units, 8,450 square feet of office, and 146,000 square feet of retail uses. At the southern end of the Township 9 development along Richards Boulevard is the light rail transit station, currently under construction. This light rail station is the first stop on Regional Transit's Green Line. This is the first phase of the extension of light rail transit from Downtown Sacramento, through Natomas, to the Sacramento International Airport.

The Continental Plaza PUD was established in 1996. It is currently entitled for approximately 1.1 million square feet of office uses, of which 300,000 square feet are already constructed and occupied by the

Project Description

headquarters of the California Highway Patrol. The California State Lottery Headquarters, another State office located in the River District, is currently constructing a new headquarters building and expansion of the office campus on its 12.7-acre parcel.

At buildout, the North 7th Street area is expected to be employment intensive, with a mix of supportive commercial and high-density residential uses. The Specific Plan supports better connections between the area and the American River Parkway, taking advantage of natural views and recreational opportunities.

Dos Rios Area. This subarea is generally bounded by North 10th Street on the west, the American River on the north, North B Street on the south and North 12th Street on the east. It has an eclectic mix of uses and building types. The area is envisioned to transition from light industrial uses to a mix of residential and retail/commercial infill. The area provides opportunities for adaptive reuse, converting existing warehouses into offices or other commercial uses. There are abandoned railroad spurs in the area which are proposed for the development of a bikeway connection along the rails connecting to the American River Parkway.

The Twin Rivers School District has a school located in this area off of Richards Boulevard, which is eligible for historic designation. The area also contains the Twin Rivers Housing Project (formerly Dos Rios Housing) which was constructed in the 1940s and contains over 200 residential units.

North 16th Street Area. The subarea is generally bounded by North 12th Street on the west, the American River on the north, and the Union Pacific Railroad right-of-way to the east and south. The North 16th Street Area is characterized by primarily warehouse, social service and commercial service uses. The area also includes a mini-storage and Downtown Ford east of North 16th Street near the Highway 160 bridge over the American River, along with the Dreher-Basler residential neighborhood. The area is anticipated to be an eclectic area that will retain its light industrial uses, while incorporating an additional mix of residential and commercial uses through infill projects and industrial conversions.

The North 16th Street Area also contains the River District's proposed historic district. It is characterized by over 20 buildings, mostly of brick masonry construction, built primarily from the 1920s through 1940s. These buildings are currently occupied by a mix of businesses, warehouses, and social services. This proposed historic district is adjacent to Blue Diamond Growers and the Globe Mills housing project at 12th & C Streets. The historic district is expected to retain its mix of light industrial and commercial uses, with opportunities for adaptive reuse, mixed use, live-work, and new residential components on floors above commercial uses.

Bannon Street Area. The Bannon Street Area is generally bounded by Richards Boulevard to the north, Interstate 5 to the west, North 10th Street to the east, and the Railyards Specific Plan area to the south. It is dominated by three large parcels: to the west, the City's Water Treatment Plant; at North 7th Street and Richards Boulevard; the State of California Printing Plant; at North 7th Street and Richards Boulevard; and the old City Incinerator Site at North 7th Street and North B Street. The area now is home primarily to warehousing businesses. The area has experienced the most new private development within the RDSP area in recent years. Three new developments in the Area are five small flex-warehouses on North 10th Street, the new Schetter Electric building on Bannon Street, a warehouse on North 10th Street and Richards Boulevard, and the City-owned office building at 300 Richards Boulevard. A Greyhound Bus Terminal will soon be constructed on Richards Boulevard.

The Specific Plan vision for this area includes predominantly office uses fronting Richards Boulevard with commercial and housing on interior streets. Moving in a southerly direction, the uses would transition from a higher to a lesser intensity with office mixed uses and residential mixed uses. Along the southern border of this area is the Railyards Specific Plan development which plans a primarily residential area at this location.

Project Description

In the Bannon Street Area, the Specific Plan envisions a 10 acre park wrapping the northern and eastern edge of the City Water Treatment Plant facility. This open space will connect to Vista Park, which is planned in the Railyards Specific Plan Development.

Streets and Circulation

Full implementation of the RDSP requires the construction of several streets within the Specific Plan area (see Figure 3-6). The new streets would allow for the proposed six subareas to be arranged on a gridded street pattern, serving as extensions of the Central City grid and the street network approved in 2007 with the Sacramento Railyards Specific Plan project.

The following new rights of way are necessary for extensions of existing roads, road widening, or creation of new roads:

- Vine Street (Dos Rios to North 12th Street)
- Richards Boulevard (North 4th Street to North 16th Street)
- Bannon Street (North 11th Street to Street W)
- North 3rd Street (Bannon Street to Signature Street)
- North 4th Street (North B Street to Bannon Street)
- North 5th Street (southern boundary of RDSP to Richards Boulevard)
- North 7th Street (North B Street to Richards Boulevard)
- Street N (North B Street to North C Street)

Some areas of right of way acquisition would require the demolition of structures.

As shown on Figure 3-6, in addition to new streets, the proposed backbone circulation improvements would include improvements to the street sections on some of the existing streets.

Parks

There are currently no neighborhood or community parks in the RDSP area. The District has two regional parks, the Robert T. Matsui Waterfront Park, located on Jibboom Street and Tiscornia Park, located at the confluence of the two rivers (see Figure 3-7). The City is currently processing a proposal to redesignate the Waterfront Park to a community park as part of a Park Master Plan amendment and approval of the proposed Powerhouse Science Center.

Because the Specific plan envisions the River District as an urban setting of mixed uses with residential densities similar to the Central Business District, neighborhood parks and public spaces will likely be smaller and more compact, with more of an urban character.

Riverfront Development

Enhancement of the riverfront edges within the plan area is a key component of the Specific Plan effort; a portion of the plan will focus on connecting pedestrians and cyclists to the American and Sacramento Rivers through a series of destinations that are laid at roughly quarter-mile increments along the Rivers. The open spaces are designed to provide ten minute walking intervals along the Rivers, providing alternating passive and active nodes from Old Sacramento and Robert Matsui Park, past the American River Bridge, a distance of nearly three miles.

A Class 1 bicycle and pedestrian trail, the Two Rivers Trail, winds along the American and Sacramento River levees in the River District. The Two Rivers Trail extends from Tiscornia Park, on Jibboom Street, to the

Project Description

Highway 160 Bridge. Completed in 2006, it is the first phase of a planned project that will extend the trail to Sutter's Landing Regional Park, and ultimately to the H Street Bridge that crosses the American River near California State University, Sacramento. Although the RDSP does not propose improvements to this trail; the Plan would construct connections from the existing streets to the trail.

Public Utilities

The developed portions of the Proposed Project area are currently served with public utilities (water, sewer, and storm drainage).

Water

Some areas of the RDSP are currently served with existing infrastructure that will continue to serve the future development anticipated in the Specific Plan. Although development of parcels is not proposed as part of this RDSP project, installation of the necessary backbone water distribution mains to serve future development is proposed.

Although the existing water supply infrastructure is in place throughout the Specific Plan area and no new transmission mains are proposed to serve the area, there will be new distribution mains needed to support the proposed development. The City currently has three water transmission mains (mains larger than 12") that serve the Specific Plan area; they are a 24" main in Bercut Drive, a 36" main in North B Street, and a 42" main in 18th Street. The installation of the required water distribution system would include new 8" to 12" mains and would occur in phases as development proceeds. As shown on Figure 3-8, the water distribution system would consist of an improved grid network of distribution mains beneath street rights of way with connections to the existing transmission and distribution systems.

No offsite water infrastructure is necessary for the RDSP.

Sewer Infrastructure

The backbone sanitary sewer facilities in the RDSP area would be installed as part of the Specific Plan to serve future development. New trunk and local conveyance mains are proposed (see Figure 3-9) and as with the backbone water infrastructure, it is currently anticipated that the backbone sewer infrastructure would be installed in three phases. As with the water infrastructure, the phasing could change depending upon the development proposed by the individual property owners.

As shown on the figure, some areas of the RDSP are currently served with existing trunks and mains that will continue to serve the future development anticipated in the Specific Plan.

The proposed sanitary sewer facilities required to implement the RDSP include construction of limited amounts of trunk main and local conveyance mains. The proposed sewer system is shown on Figure 3-9. The sewer will be routed through the Railyards Specific Plan development to 3rd and I Streets in the RDSP area. There are several projects that must be constructed prior to routing River District sewer flows through the Railyards Specific Plan. They include the construction of a pump station, installation of additional large diameter trunk mains, and the reconstruction and upsizing of the existing 3rd Street Sewer main all within the RY area. Funding for the construction and maintenance of the facilities required would be cost shared between the Railyards Specific Plan development and developments within RDSP through the financing plans.

The City would continue to provide sewage treatment at the Sacramento Regional Wastewater Treatment Plant for development within the RDSP area during dry weather and small storm events, with excess flows during large storm events transmitted to the Combined Wastewater Treatment Plant.

No offsite sewer infrastructure is necessary to serve the proposed development in the RDSP.

Storm Drainage

The current storm drainage system in the RDSP area is predominantly a separated system with drainage flows being pumped directly to the American River. Presently, about 20-percent of the Plan Area, in the eastern portion, drains to the combined sewer system.

Figure 3-10 shows the proposed backbone storm drainage facilities for the RDSP. As with the water and sewer, the storm drainage infrastructure would be installed in phases.

The proposed improvements to the drainage system within the RDSP area would include modifications to pump station Sump 11 to increase efficiency. In addition, several common drainage mains would be required to convey flows to the two proposed drainage basins. The basins would be installed to reduce peak flows to Sump 11 and to reduce/prevent flooding with the RDSP area.

No improvements to the outfall to the American River are proposed as part of the RDSP project.

Energy

Sacramento Municipal Utility District (SMUD) provides electrical service within the RDSP area, while Pacific Gas and Electric (PG&E) provides natural gas.

The growth proposed in the RDSP could have a cumulative impact on these two provider's systems and may require additional on- and off-site additions and improvements to the transmissions and distribution facilities, and attendant facilities.

SMUD and PG&E would be responsible for the planning and installation of any improvements to their systems, including any necessary environmental reviews.

Public Services

At the present time, fire protection and police services are provided to the River District planning area by the City of Sacramento Fire and Police Departments. The Fire Department maintains two stations within the downtown area and one station within the River District area. An interim substation for the Police Department is located in the River District at 300 Richards Boulevard.

The new development associated with the RDSP would increase the need for a new fire station to provide adequate public safety for the area's residents, employees, and visitors.

The increase of student population may necessitate the development of additional school facilities. New residential development within the Specific Plan Area will be required to contribute to the provision of new school facilities, either through the construction of new facilities or the payment of fees to fund facility needs. As new development is built within the Plan Area, the actual student generation rate per household will be monitored in order to evaluate and adjust, if necessary, the student projections included in this Specific Plan.

Project Objectives

- Provide a sense of place through the District's unique character, building, and site designs.
- Create distinct neighborhoods, each with its own characteristics.
- The River District's desirable location will support a diverse and robust economy
- Connect the RDSP area with Sacramento's downtown, the Railyards Specific Plan area, and the Alkali Flat neighborhood using roads, pedestrian and bicycle facilities, and public transportation routes.
- Integrate the RDSP area into the fabric of Sacramento. The area has been historically isolated from the City due to its location and lack of connecting infrastructure.
- Create a development that is a regional draw for the City due to its geographic location near downtown and adjacency to the City's two riverfronts.
- Create a sustainable community that uses green technology, encourages LEED-certified buildings, and conserves water.
- Support strategies to improve safety and social conditions.
- Transform the RDSP area from an underutilized area into a transit-oriented, mixed-use urban area.
- Strengthen the scenic environment and livability of the River District through development of public parks and open space.

Project Entitlements:

The following entitlements are required for the Proposed Project. The potential environmental impacts associated with development in accordance with these entitlements are analyzed in this EIR.

- A. Certification of the EIR
- B. Adoption of a Mitigation Monitoring and Reporting Program
- C. Repeal the Discovery Centre Planned Unit Development
- D. Adopt the City Zoning Code (Title 17) Amendment for Section 17.120 and repeal the Richards Boulevard Special Planning District; and reenact Chapter 17.120, River District Special Planning District (SPD) and establishing the new zoning districts for the River District SPD
- E. Adopt the RDSP Public Facilities Financing Element
- F. Amend the City Bikeway Master Plan to incorporate the RDSP Bicycle Network
- G. Adopt the RDSP Design Guidelines
- H. Adopt the Historic Ordinance creating the North 16th Street Historic District

- I. Rezone some parcels within the RDSP area
- J. Approve the Water Supply Assessment for the RDSP

Necessary Permits and Approvals from Other Agencies

In addition to the approvals required from the City of Sacramento, development of the proposed project would require approvals and permits from federal, State, and other local agencies. These include, but are not limited to, the following:

- Redevelopment Agency of Sacramento
- National Pollutant Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board (RWQCB)
- General Construction Permit from RWQCB
- Department of Toxic Substances Control (DTSC) clearances
- Sacramento Metropolitan Air Quality Management District (SMAQMD) permits for construction
- Encroachment permit from the State Reclamation Board
- Encroachment permits from Caltrans for construction and connection of roads adjacent to State and federal highways.

Project Schedule and Phasing:

As previously noted, the RDSP is assumed to be a 25-year plan, with buildout anticipated in Year 2035. Because this proposed project is the creation of a Specific Plan, with only backbone utility infrastructure proposed for development, there is no schedule of development of the parcels within the District in accordance with the Specific Plan. There are approximately 400 parcels within the RDSP area, so it would be speculative to make assumptions as to which parcels would develop when.

Figure 3-1: Location Map

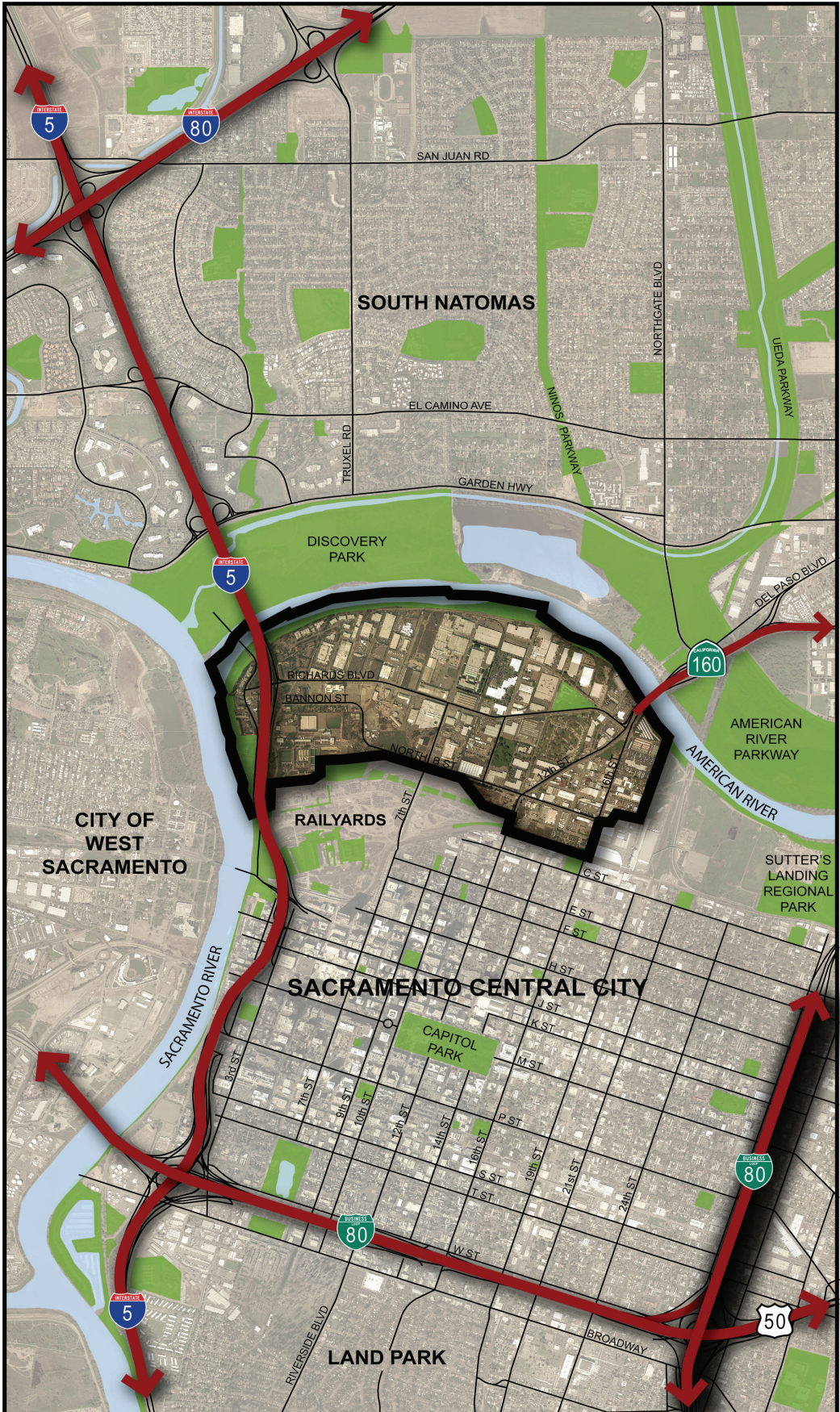
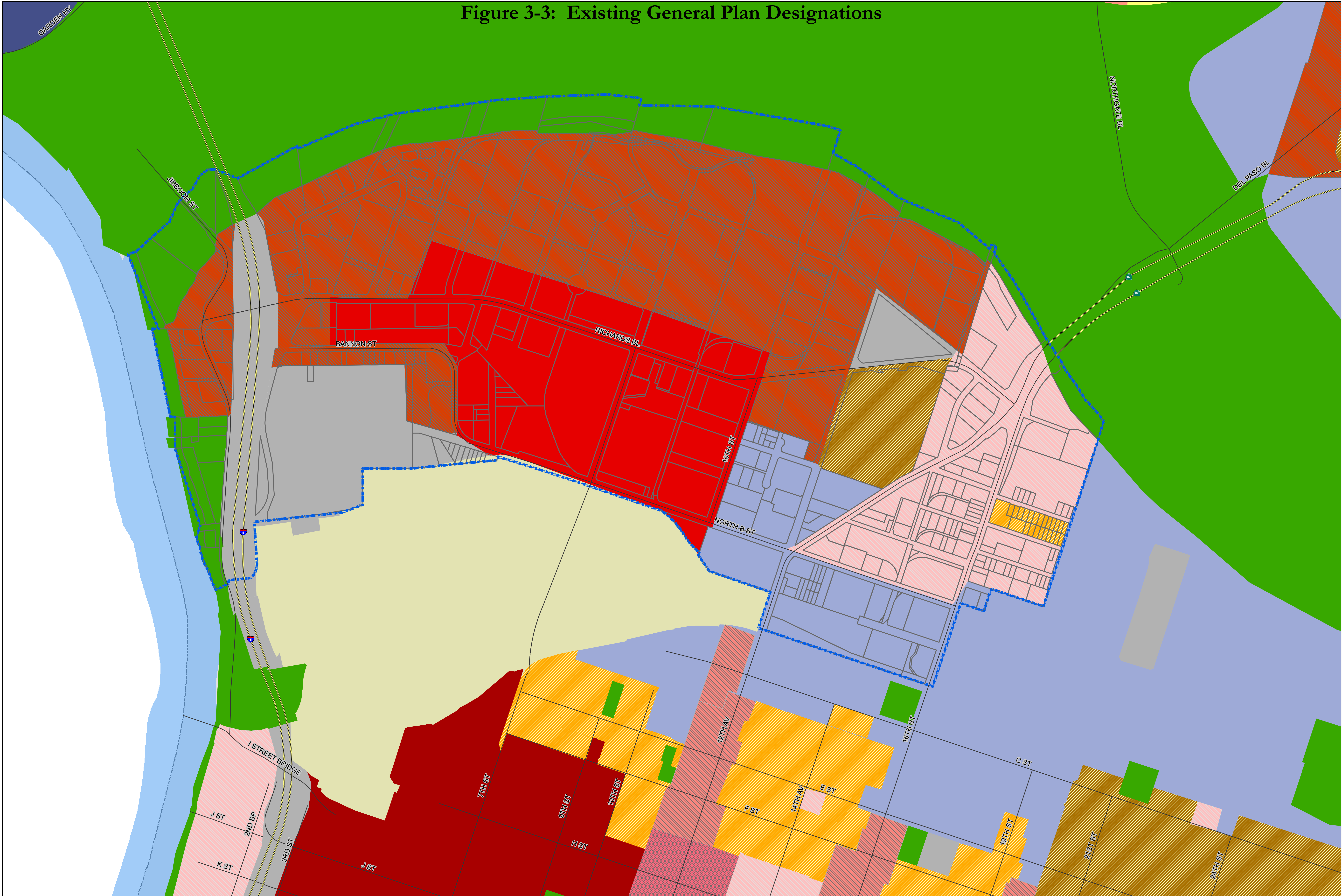


Figure 3-2: Existing Setting



Figure 3-3: Existing General Plan Designations

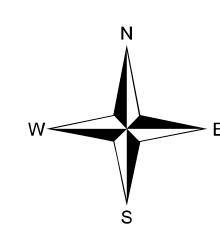


River District Specific Plan Boundary	Suburban Neighborhood High	Urban Neighborhood High	Corridors	Special Study Areas
River District Parcels	Traditional	Centers	Suburban Corridor	Planned Development
2030 Preferred Land Use	Traditional Neighborhood Low	Suburban Center	Urban Corridor Low	Public
Rural	Traditional Neighborhood Medium	Traditional Center	Urban Corridor High	Parks
Rural Neighborhood	Traditional Neighborhood High	Regional Commercial	Other Districts	Open Space
Suburban	Urban	Urban Center Low	Employment Center (Low Rise)	
Suburban Neighborhood Low	Urban Neighborhood Low	Urban Center High	Employment Center (Mid Rise)	
Suburban Neighborhood Medium	Urban Neighborhood Medium	Central Business District	Industrial	

River District Specific Plan

2030 GENERAL PLAN
Proposed Land Use

Scale: 1" = 300'
0 300 600 900 1200 Feet



THE RIVER DISTRICT

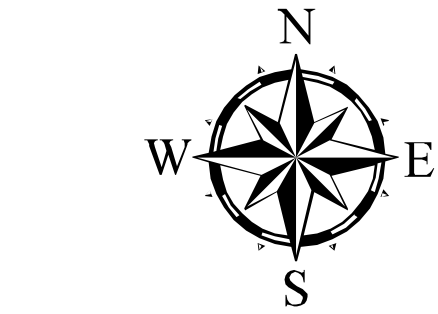
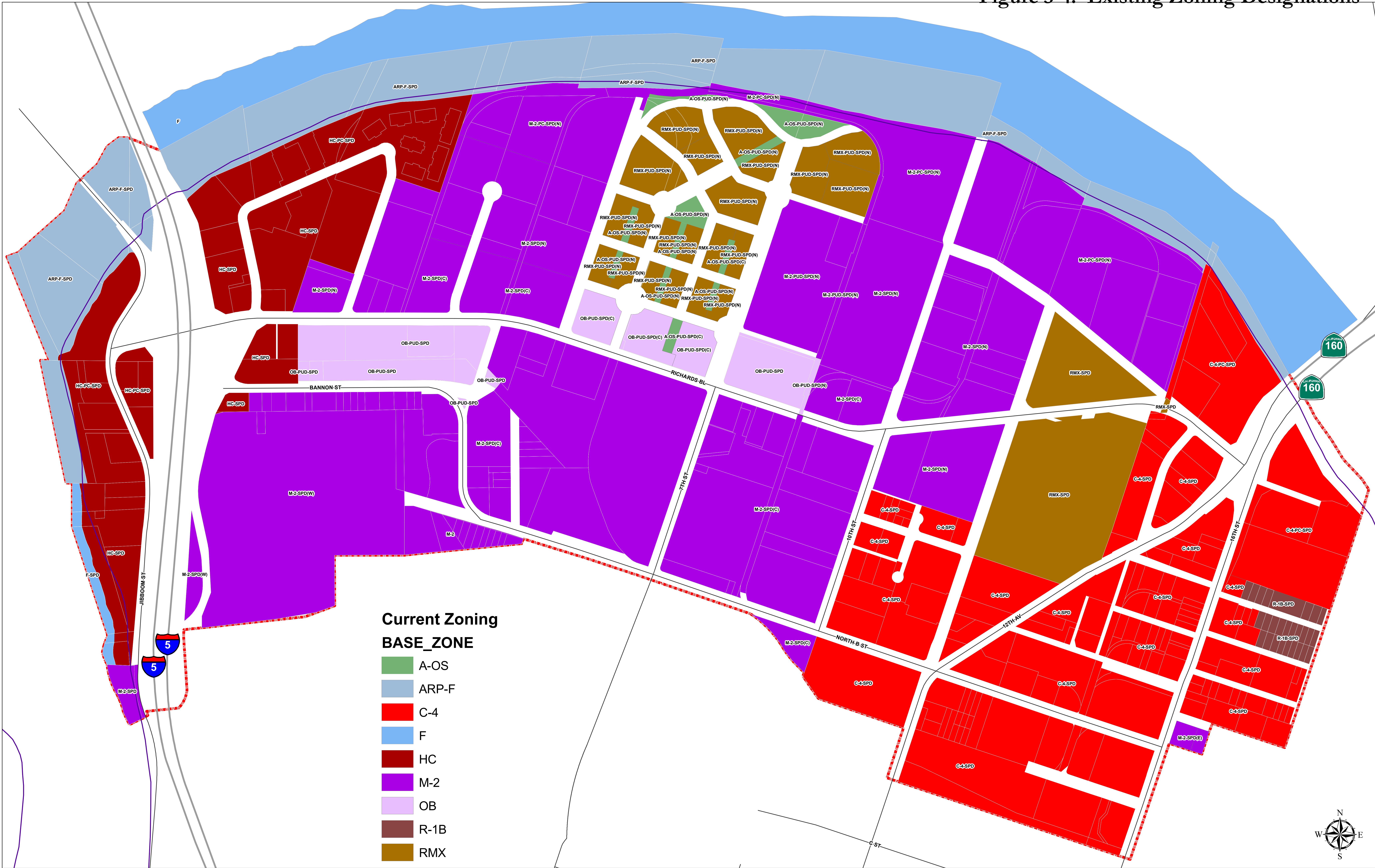


Figure 3-5: River District Specific Plan Subareas

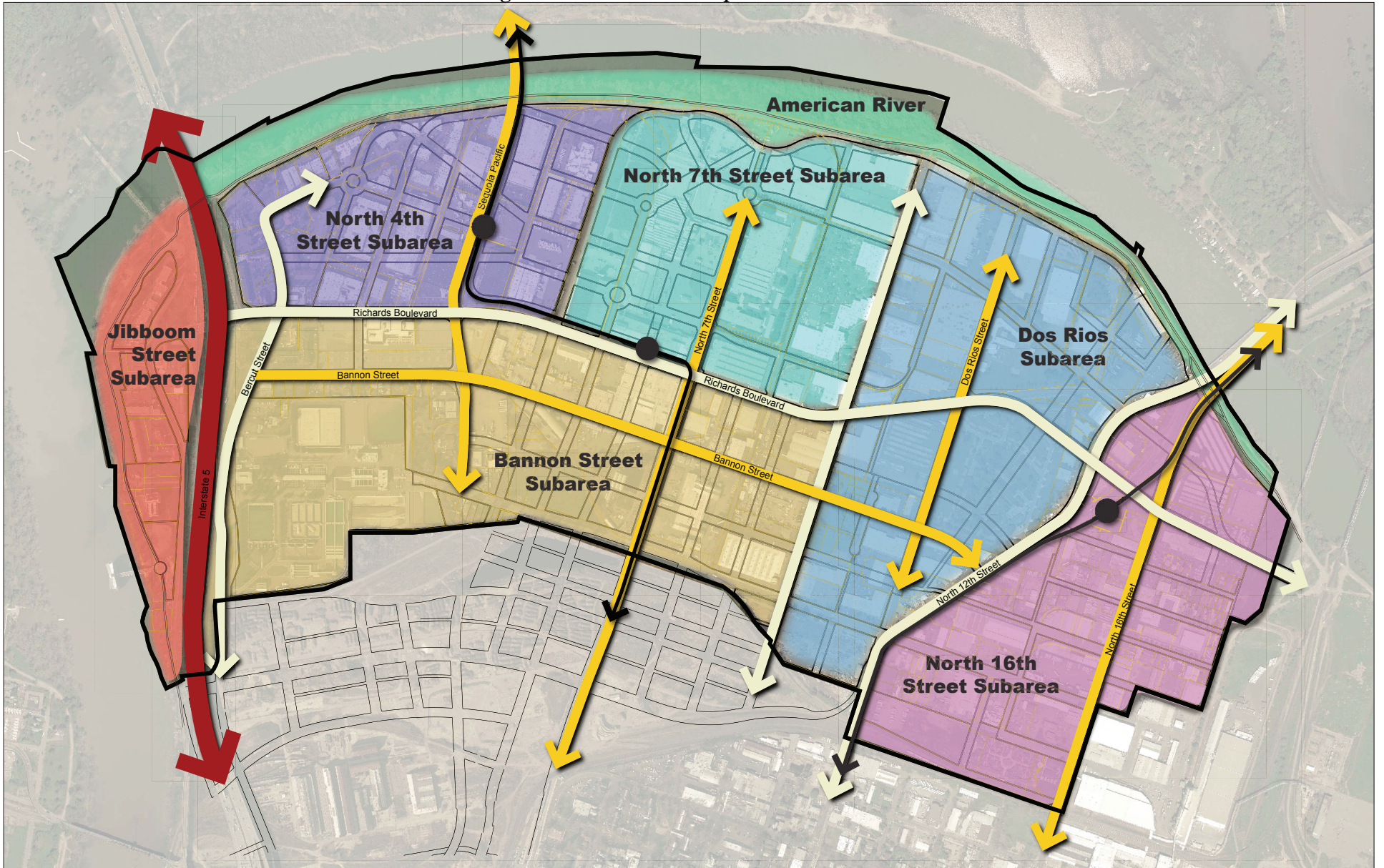


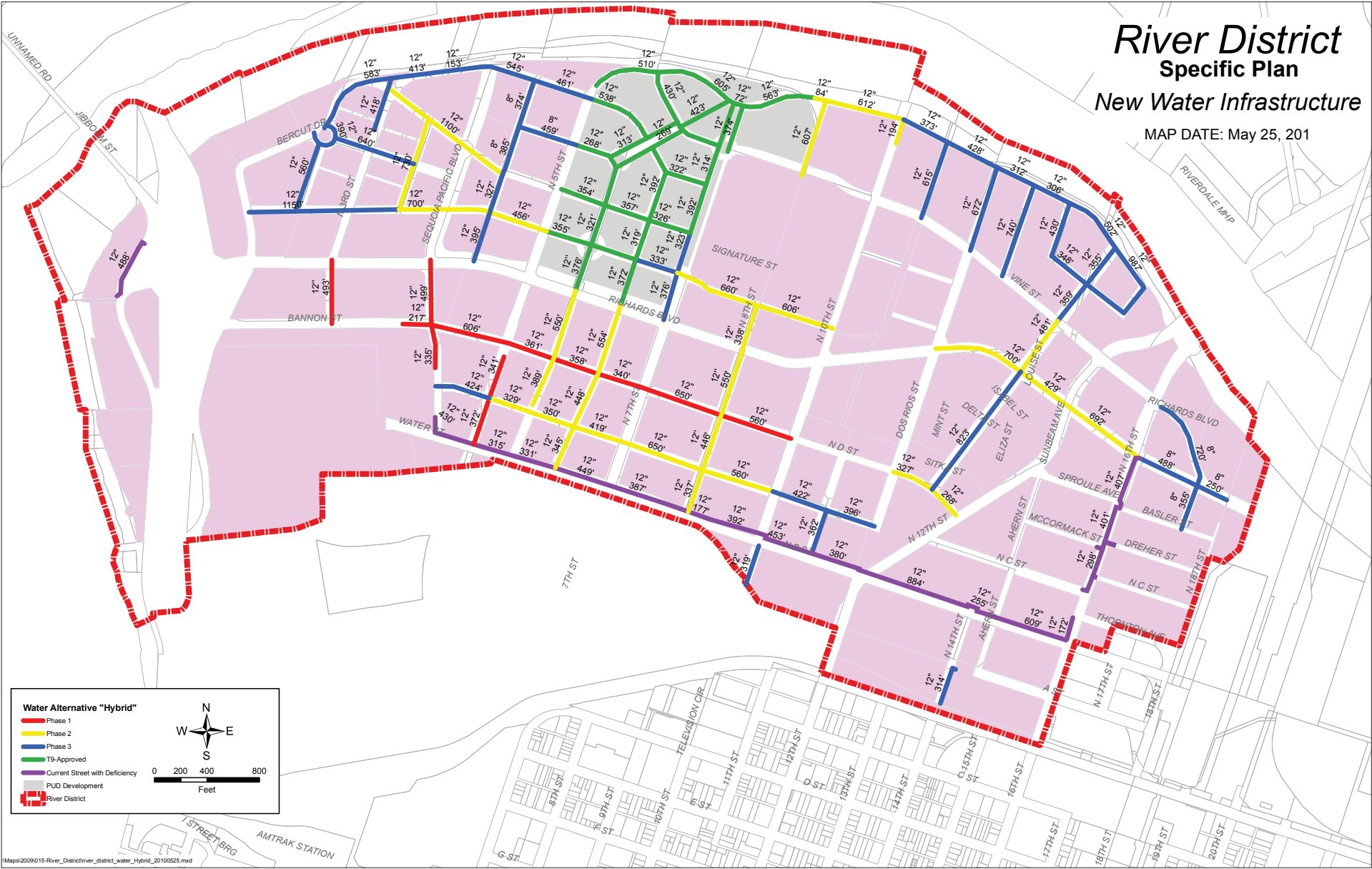
Figure 3-7: Existing and Proposed Parks in the River District



Figure 3-8: River District Specific Plan Proposed Water Infrastructure

River District Specific Plan New Water Infrastructure

MAP DATE: May 25, 2011



Water Alternative "Hybrid"

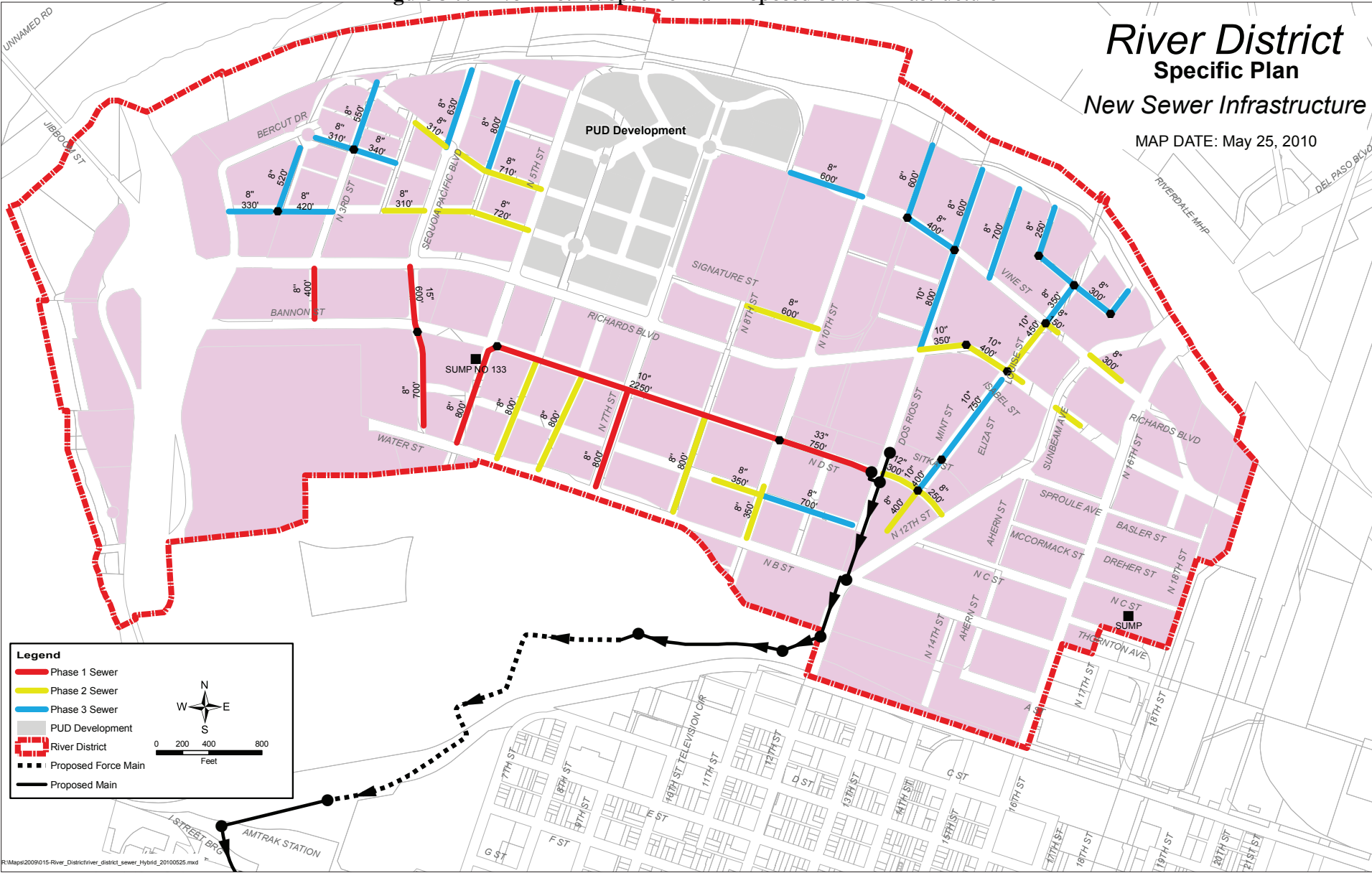
- Phase 1
- Phase 2
- Phase 3
- T9-Approved
- Current Street with Deficiency
- PUD Development
- River District

0 200 400 800
Feet

Figure 3-9: River District Specific Plan Proposed Sewer Infrastructure

River District Specific Plan New Sewer Infrastructure

MAP DATE: May 25, 2010



Legend

- Phase 1 Sewer
- Phase 2 Sewer
- Phase 3 Sewer
- PUD Development
- River District
- Proposed Force Main
- Proposed Main

N

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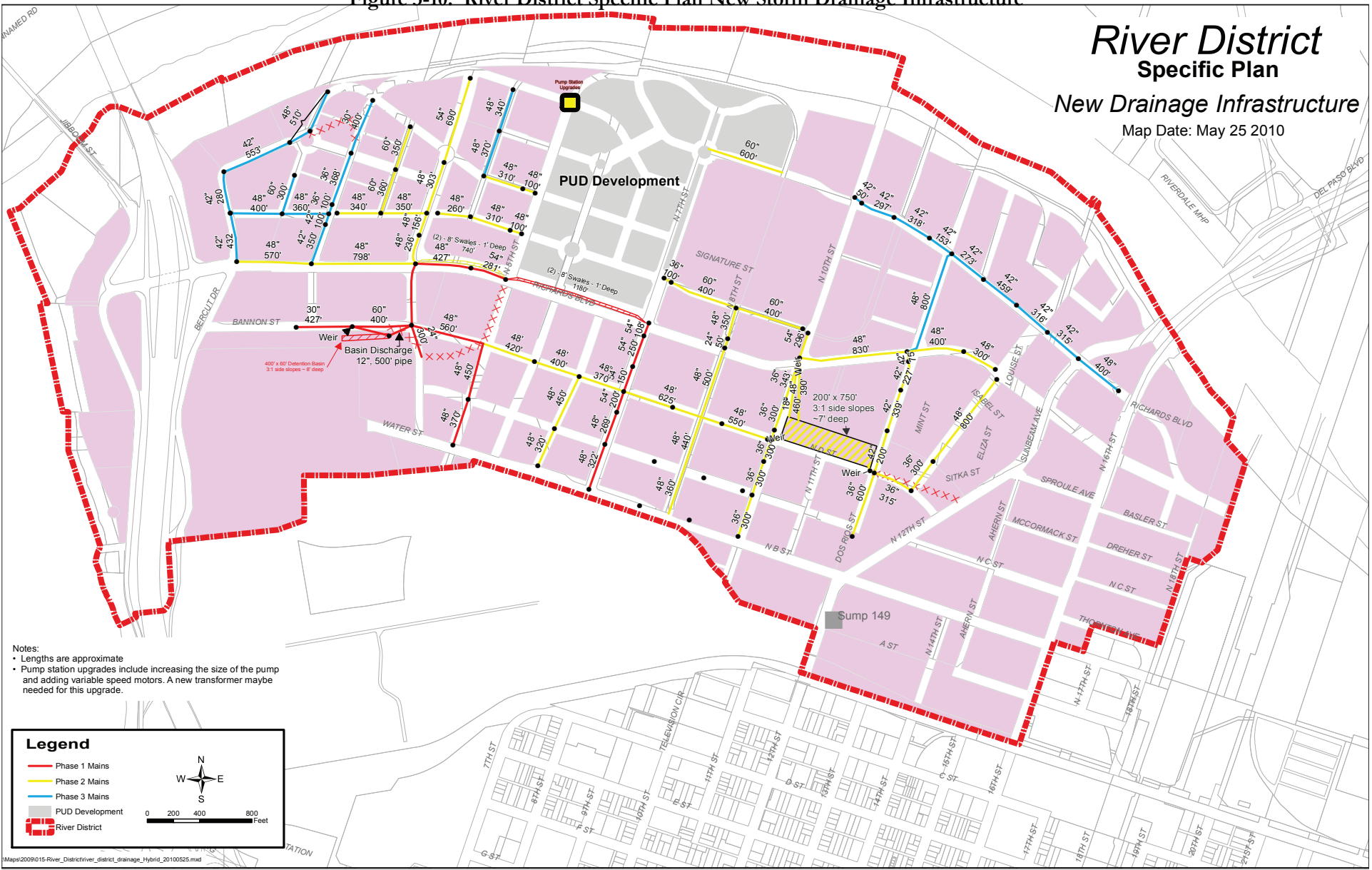
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Figure 3-10: River District Specific Plan New Storm Drainage Infrastructure

River District Specific Plan

New Drainage Infrastructure

Map Date: May 25 2010



Notes:

- Lengths are approximate
- Pump station upgrades include increasing the size of the pump and adding variable speed motors. A new transformer maybe needed for this upgrade.

Legend

- Phase 1 Mains
- Phase 2 Mains
- Phase 3 Mains
- PUD Development
- River District

CHAPTER 4: LAND USE

Chapter 4

Land Use

This chapter of the EIR discusses the consistency of the Proposed Project with existing land use plans and policies as well as land use compatibility with adjacent lands. CEQA Guidelines Section 15125(d) states that the environmental setting of an EIR must discuss “any inconsistencies between the proposed project and applicable general plans and regional plans.” This chapter evaluates the Proposed Project for consistency with the policies of the 2030 General Plan and the Central City Community Plan, consistency with the Sacramento Zoning Code; consistency with other local plans, including the Sacramento Area Council of Governments’ (SACOG) Blueprint, Sacramento County’s American River Parkway Plan and the City’s Sacramento Riverfront Master Plan. This chapter differs from impact discussions in that only plan or policy consistency issues are discussed, as opposed to a discussion of the physical impacts on the environmental that could occur with implementation of the proposed project. In addition the potential for the proposed RDSP to physically divide an established community is discussed.

The issue of population, employment, and housing is not analyzed in this EIR. The development of the RDSP area with future development assumptions of 8,000 dwelling units and 10,600 employees was assumed as one of the pipeline projects in Table 5-5 of the Master EIR for the General Plan.

The MEIR for the 2030 General Plan is hereby incorporated by reference, in particular, Chapter 4, Land Use Consistency and Compatibility.

Four comment letters related to land use and planning were received in response to the NOP (see Appendix A).

- A private citizen expressed concern that the proposed RDSP does not take advantage of the two rivers that surround the project area. He preferred a marina instead of a boat house. Because the Proposed Project does not include any development on the water side of the levees, the project does not propose any facilities on the water. Also, the commentator stated that he preferred that development be setback a minimum of 50-feet along the river. Again, because the project does not propose any development on the water side of the levees, development up to the banks of the rivers is not an issue.
- Regional Transit requested that transit oriented development be provided adjacent to light rail stations, with mixed use development that densities that support transit. Ground floor retail would enliven station areas and improve safety by having “eyes on the street”. This comment is addressed in this chapter.
- The Sacramento Metropolitan Air Quality Management District recommended that the City expand the pattern of small blocks within a grid network of streets prevalent in the downtown and midtown. This comment is addressed in this chapter.

Existing Land Uses

The RDSP was formerly known as the Richards Boulevard Area Plan (RBAP), which was adopted by the City of Sacramento in 1994. This Proposed Project would supersede the RBAP. The RBAP has served as the

governing community plan for the RDSP area and envisioned a district traversed by arterial couplets connecting Interstate 5 and State Highway 160. An intermodal station at North B Street and North 7th Street was also envisioned. In 2007, the City formally approved a plan to construct the station in a different location as part of the Sacramento Valley Station project. This action effectively eliminated one of the core principles of the RBAP.

Access into the RBAP was constrained by the levee flood control system, the old Southern Pacific railyards, the railroad tracks and the rivers. Due in part to the accessibility issues of the area, the Specific Plan area is used primarily for light industrial, warehousing and distribution businesses. The Project Area also contains about 386 residential units. These residences are scattered throughout the RDSP area, with the majority in the Dreher-Basler Neighborhood, Quinn Cottages, and the Twin Rivers Housing Project, formerly called the Dos Rios Housing Project. The Dreher-Basler neighborhood is located east of 16th Street. The Twin River Housing project is located south of Richards Boulevard, between Dos Rios and Ahern Streets. Quinn Cottages, a transitional housing development, is located on A Street between 14th and 16th Streets. The Project Area also contains about 384,000 square feet of commercial/retail uses, 103,029 square feet of civic/institutional uses, 1,312,000 office uses, 5,070,000 square feet of light industrial businesses, and 1,006 rooms in seven hotels collected around Interstate 5.

Proposed Land Use Changes

The proposed RDSP provides an opportunity to transform the nature of the Plan area, improve connections with downtown and the Railyards Specific Plan area, and create a pedestrian-friendly district with a grid of local, two-way streets. The goal of the RDSP is to provide the planning support for development what will transform the district into an economically viable, transit-oriented, urban neighborhood supporting a mix of land uses. The proposed Plan envisions a circulation network that evolves over time from the current industrial-based network to one that prioritizes the pedestrian and bicycle, while balancing diverse land use needs and maintaining the viability of businesses using large vehicles in their operations.

The proposed RDSP proposes mixed-use development around a probable future light rail station in the northwest corner of the RDSP area. The zoning for this area would allow for ground floor retail.

In addition, the RDSP proposes to extend the street grid pattern from the south into the project area and enhancing this grid with new streets within the project area.

The two 2030 General Plan designations for the majority of the RDSP area are Urban Center Low and Urban Center High (see Figure 4-1). The development densities allowed by these two designations range from 20 to 250 dwelling units per net acre. The allowable densities for the proposed RDSP range from 36 to 174 dwelling units per acre. Therefore, the RDSP proposes less dense residential development that currently allowed by the General Plan.

The intent of the RDSP is to provide for the continuation of existing industrial and service commercial uses and to allow existing manufacturing and processing uses to remain within the area in their current locations. Recent development activity in the area indicates a trend toward replacement of these uses with office and mixed use and this trend is expected to continue as new infrastructure and services are developed in the area.

The number of heavy industrial uses in the area is limited and the establishment of new heavy industrial uses will continue to be prohibited under the new Specific Plan. The RDSP recognizes that there is no need to prematurely induce the relocation of the existing uses; however, new incompatible uses would be restricted from entering the area.

A number of assumptions pertaining to the distribution of land uses and proposed intensities were made about future development in the RDSP. The assumptions are not meant to be prescriptive, but would rather act as a tool to envision an overall level of development within the Specific Plan area.

Table 4.1							
Assumed Land Uses at Full Buildout of RDSP (Year 2035)							
	Residential (dwelling units)	Civic/ Institutional (sf)	Office (sf)	Commercial /Retail (sf)	Light Industrial (sf)	Hotel (rooms)	Parks (ac)
Existing/Previously Approved¹	2,736	103,029	3,692,000	538,400	5,070,000	1,006	28 - 31
Development that Could Occur due to RDSP	5,408	0	264,000	315,600	-3,607,000 ²	2,038	27
Total	8,144	103,029	3,956,000	854,000	1,463,000	3,044	55-58
<i>Notes</i>							
1. See Table 3-1							
2. Over time as the Specific Plan is implemented, the total square footage of industrial uses within the plan area is anticipated to be reduced.							

For the most part, all citywide zoning code requirements that are in effect within a particular zoning designation would apply to the proposed RDSP (see Figure 4-2). As they apply to the RDSP, the following would be the zoning designations:

- **Limited Commercial (C-1):** This is a limited commercial zone which allows certain office, retail stores, and commercial service establishments which are compatible with residential developments.
- **General Commercial (C-2):** This is a general commercial zone which provides for the sale of commodities or performance of services.
- **Heavy Commercial (C-4):** This is a commercial zone designed primarily for warehousing and distribution types of activity.
- **Heavy Industrial (M-2):** This zone permits the manufacture or treatment of goods from raw materials. The only property within the River District that is zoned M-2 is the City’s Water Treatment Facility.
- **Office (OB):** This is a zone designed to permit development of business office centers and institutional or professional buildings.
- **Single or Two-Family (R-1, R-1B):** R-1 is a low density residential zone composed of single-family detached residences. R-1B allows single-family units by right and two-family units subject to special permit approval.
- **Multifamily (R-3, R-4, R-4A, or R-5):** R-3 is a multi-family residential zone intended for more traditional types of apartments. R-4 is a multi-family residential zone located generally adjacent to R-5 zoning; R-4A is a multi-family zone located generally in urban neighborhoods or near major transit stops. The R-5 multi-family zone is not entirely a residential zone and may include institutional, office and commercial uses subject to special permit review.
- **Residential Mixed Use (RMX):** This is a mixed use zone. The zone permits multifamily residential, office and limited commercial uses in a mixture established for the area through the River District Design Guidelines.
- **Agricultural Open Space (A-OS):** This is a zone designed for the long term preservation of open space land.

Sacramento 2030 General Plan

As previously noted, the proposed RDSP is consistent with the current land use designations in the General Plan and would not require a General Plan amendment. The following policies from the Sacramento 2030 General Plan are applicable to land uses within the RDSP:

LU 1.1.5 Infill Development. The City shall promote and provide incentives (e.g., focused infill planning, zoning/rezoning, revised regulations, provision of infrastructure) for infill development, redevelopment, mining reuse, and growth in existing urbanized areas to enhance community character, optimize City investments in infrastructure and community facilities, support increased transit use, promote pedestrian- and bicycle-friendly neighborhoods, increase housing diversity, ensure integrity of historic districts, and enhance retail viability.

LU 2.1.2 Protect Established Neighborhoods. The City shall preserve, protect, and enhance established neighborhoods by providing sensitive transitions between these neighborhoods and adjoining areas, and requiring new development, both private and public, to respect and respond to those existing physical characteristics buildings, streetscapes, open spaces, and urban form that contribute to the overall character and livability of the neighborhood.

LU 2.1.3 Complete and Well-Structured Neighborhoods. The City shall promote the design of complete and well-structured neighborhoods whose physical layout and land use mix promote walking to services, biking, and transit use; foster community pride; enhance neighborhood identity; ensure public safety; are family-friendly and address the needs of all ages and abilities

LU 2.3.2 Adjacent Development. The City shall require that development adjacent to parks and open spaces complements and benefits from this proximity by:

- Preserving physical and visual access
- Requiring development to front, rather than back, onto these areas
- Using single-loaded streets along the edge to define and accommodate public access
- Providing pedestrian and multi-use trails
- Augmenting nonaccessible habitat areas with adjoining functional parkland
- Extending streets perpendicular to parks and open space and not closing off visual and/or physical access with development

LU 5.1.1 Diverse Centers. The City shall encourage development of local, citywide, and regional mixed-use centers that address different community needs and market sectors, and complement and are well integrated with the surrounding neighborhoods.

LU 7.2.3 Industrial Uses along Rivers. The City shall prohibit new heavy industrial uses along the American River Parkway and prevent incompatible industrial development adjacent to the American and Sacramento Rivers.

Central City Community Plan (CCCP)

The RDSP is included within the CCCP area, which is an area bounded by the Sacramento River to the west, the American River to the north, Sutter's Landing and Alhambra Boulevard to the east, and Broadway to the south.. The CCCP serves as a development guide for the public and private sector when planning physical improvements. The CCCP is part of the City's General Plan, and provides a refinement of the goals and objectives of the General Plan to serve as a guideline for development specifically within the CCCP area. The primary goal of the CCCP is to continue revitalization of the Central City to provide a viable living, working,

shopping, and cultural environment with a full range of day and night activities for residents, employees, and visitors.

The River District is labeled as an “Opportunity Area” within the CCCP. This area has been identified as an important sub-area of the community for development in the future through infill, reuse, or redevelopment.

City of Sacramento Zoning Ordinance

The City of Sacramento Zoning Ordinance (Sacramento City Code Title 17) is intended to encourage the most appropriate use of land, conserve, stabilize, and improve the value of property, provide adequate open space for recreational, aesthetic, and environmental amenities, and control the distribution of population to promote health, safety, and the general welfare of the population of the City (Section 17.04.020). To achieve this goal, the Zoning Ordinance regulates the use of land, buildings, or other structures for residences, commerce, industry, and other uses required by the community. The Zoning Ordinance also regulates the location, height, and size of buildings or structures, yards, courts, and other open spaces, the amount of building coverage permitted in each zone, and population density.

Special Planning Districts (SPD)

As part of the proposed RDSP, the development standards that would be specific to the River District would be codified in Section 17.120 of the Sacramento City Code. This action would replace the Richards Boulevard Special Planning District, which is currently in that code section.

The City establishes SPDs to regulate properties under multiple ownerships that are in need of general physical and economic improvement. The redevelopment of parcels within a SPD is accomplished by providing flexibility to stimulate new development in existing neighborhoods that are experiencing obsolescence or decline and encouraging coordinated development of properties through a unified development theme consistent with the goals and criteria established for the individual SPD. A SPD is established by ordinance and in the case of the RDSP, Section 17.120 of the Zoning Code (Richards Boulevard SPD) would be replaced with the RDSP. This ordinance would include a list of general or specific uses permitted in the district, performance and development standards including setbacks, landscaping, building height, building intensity, security, parking, and pedestrian and auto traffic flow; design standards including an overall design theme, façade treatments, lighting, and signing requirements.

Land Use Evaluation

Physical Division of an Established Community

The RDSP area is located within the Central City Community Plan area and is surrounded on the by either existing or approved developments. As shown on Figure 4-3, the proposed RDSP does not intersect with any of these established communities. The two rivers divide the SP area from the areas to the north and south. The project does not propose any revisions to the roads adjacent to parcels to the east or southeast, nor are any walls or any development configurations proposed that would serve to divide the two areas. The project was designed to accommodate the road extensions from the Central City, through the Railyards Specific Plan area on the south. These extensions would improve the physical connectivity between these two areas that have been historically divided by the secondary levees on the south.

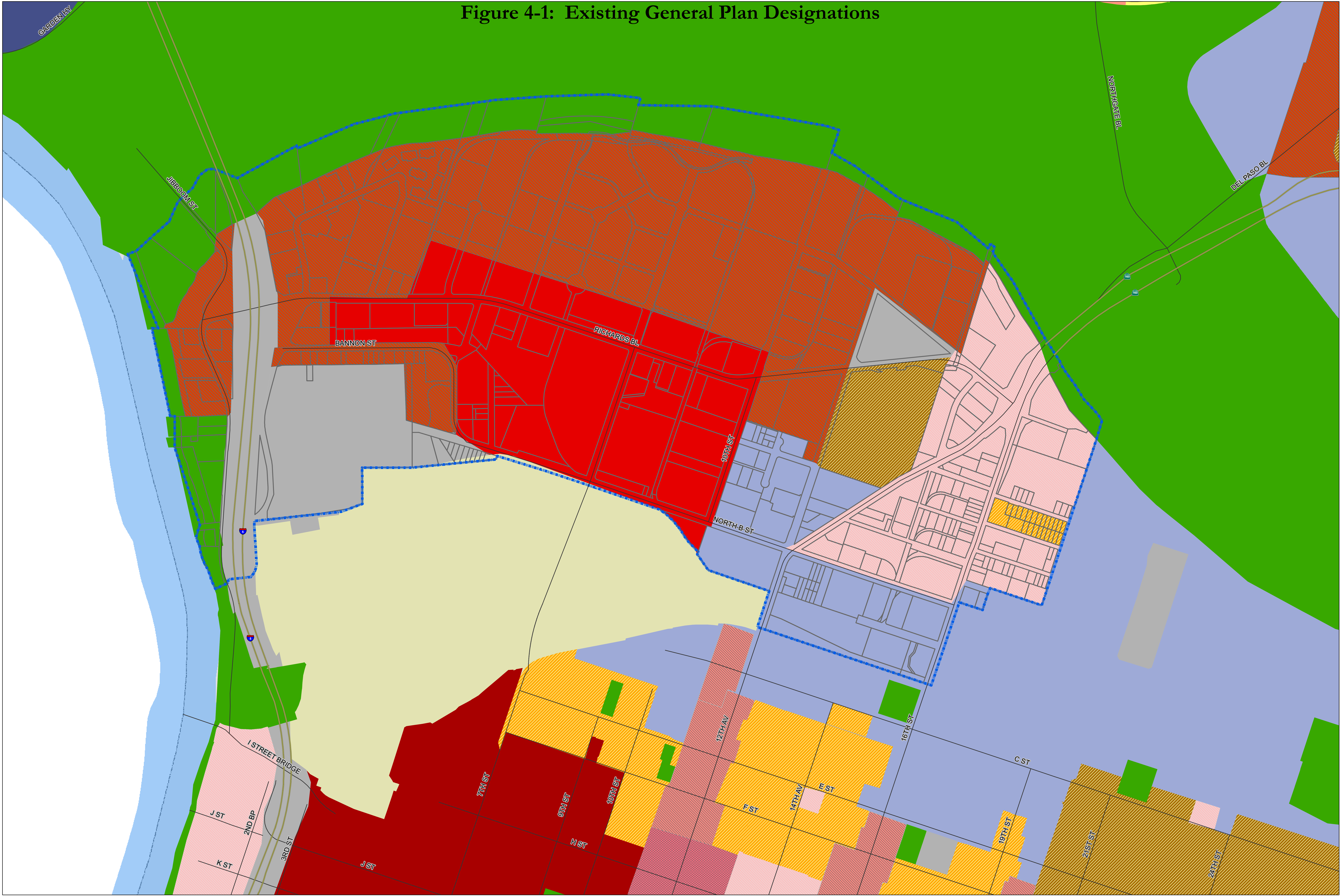
Land Use Compatibility with Surrounding Uses

Generally, the RDSP Area is adjacent to industrial and residential uses to the east, the developing Railyards Specific Plan area to the south, and the American and Sacramento Rivers to the north and west. Because the Proposed Project is consistent with the existing General Plan designations for the area, the land uses

developed in accordance with the proposed RDSP would be compatible with the surrounding areas. The types of land uses allowed by the General Plan were already considered for the RDSP area and the surrounding areas during the process of developing the 2030 General Plan. Therefore, there would not be incompatibilities in land uses.

However, specific uses developed in accordance with the General Plan, Zoning Code, and the River District Design Guidelines could result in incompatibilities due to noise, light, and increased traffic. These issues are addressed in the technical analyses in Chapter 5.

Figure 4-1: Existing General Plan Designations

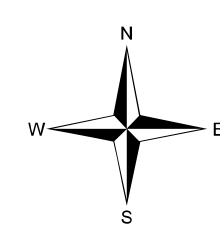


River District Specific Plan Boundary	Suburban Neighborhood High	Urban Neighborhood High	Corridors	Special Study Areas
River District Parcels	Traditional	Centers	Suburban Corridor	Planned Development
2030 Preferred Land Use	Traditional Neighborhood Low	Suburban Center	Urban Corridor Low	Public
Rural	Traditional Neighborhood Medium	Traditional Center	Urban Corridor High	Parks
Rural Neighborhood	Traditional Neighborhood High	Regional Commercial	Other Districts	Open Space
Suburban	Urban	Urban Center Low	Employment Center (Low Rise)	
Suburban Neighborhood Low	Urban Neighborhood Low	Urban Center High	Employment Center (Mid Rise)	
Suburban Neighborhood Medium	Urban Neighborhood Medium	Central Business District	Industrial	

River District Specific Plan

2030 GENERAL PLAN
Proposed Land Use

Scale: 1" = 300'
0 300 600 900 1200 Feet



THE RIVER DISTRICT

Figure 4-2: Proposed Zoning for the River District Specific Plan Area

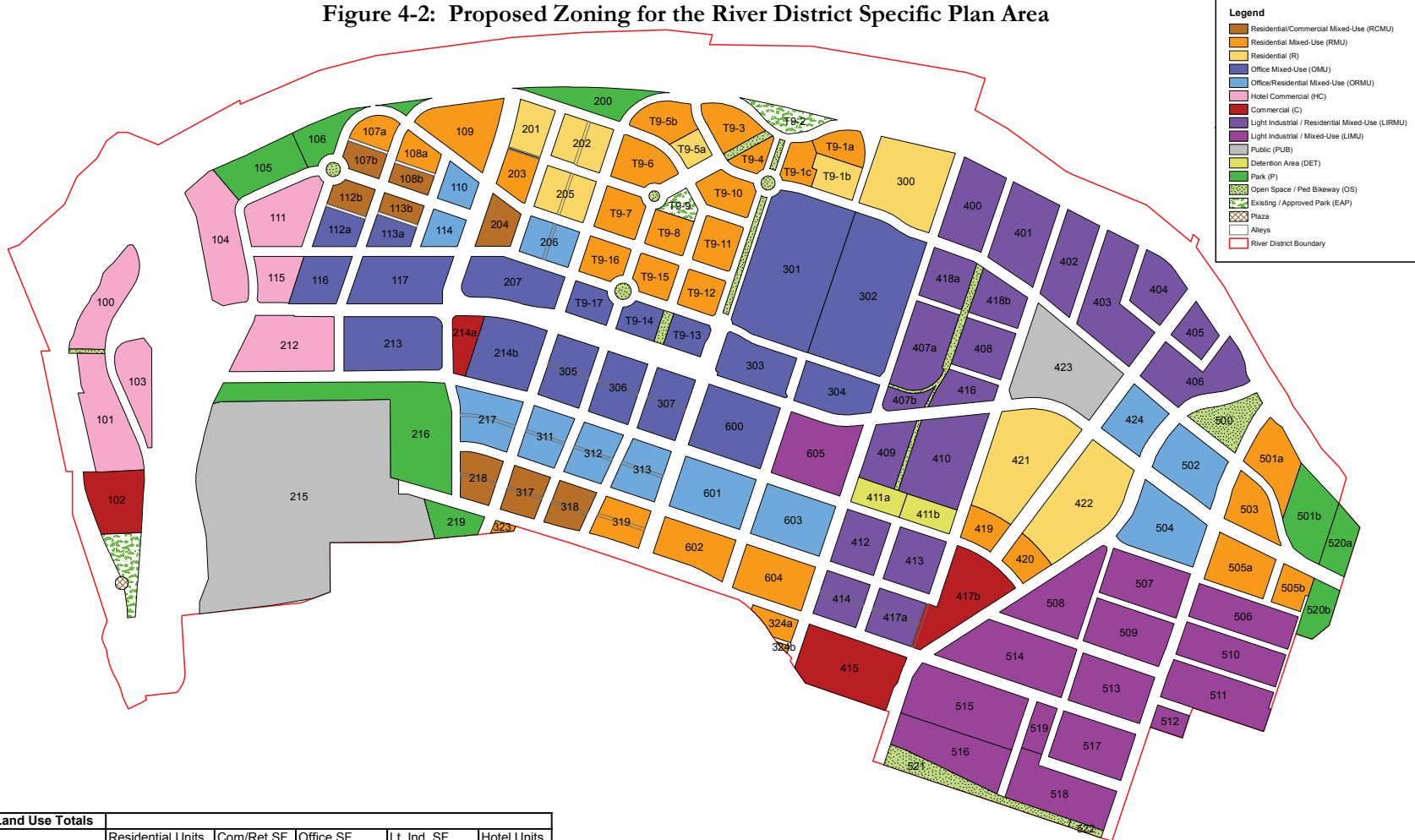
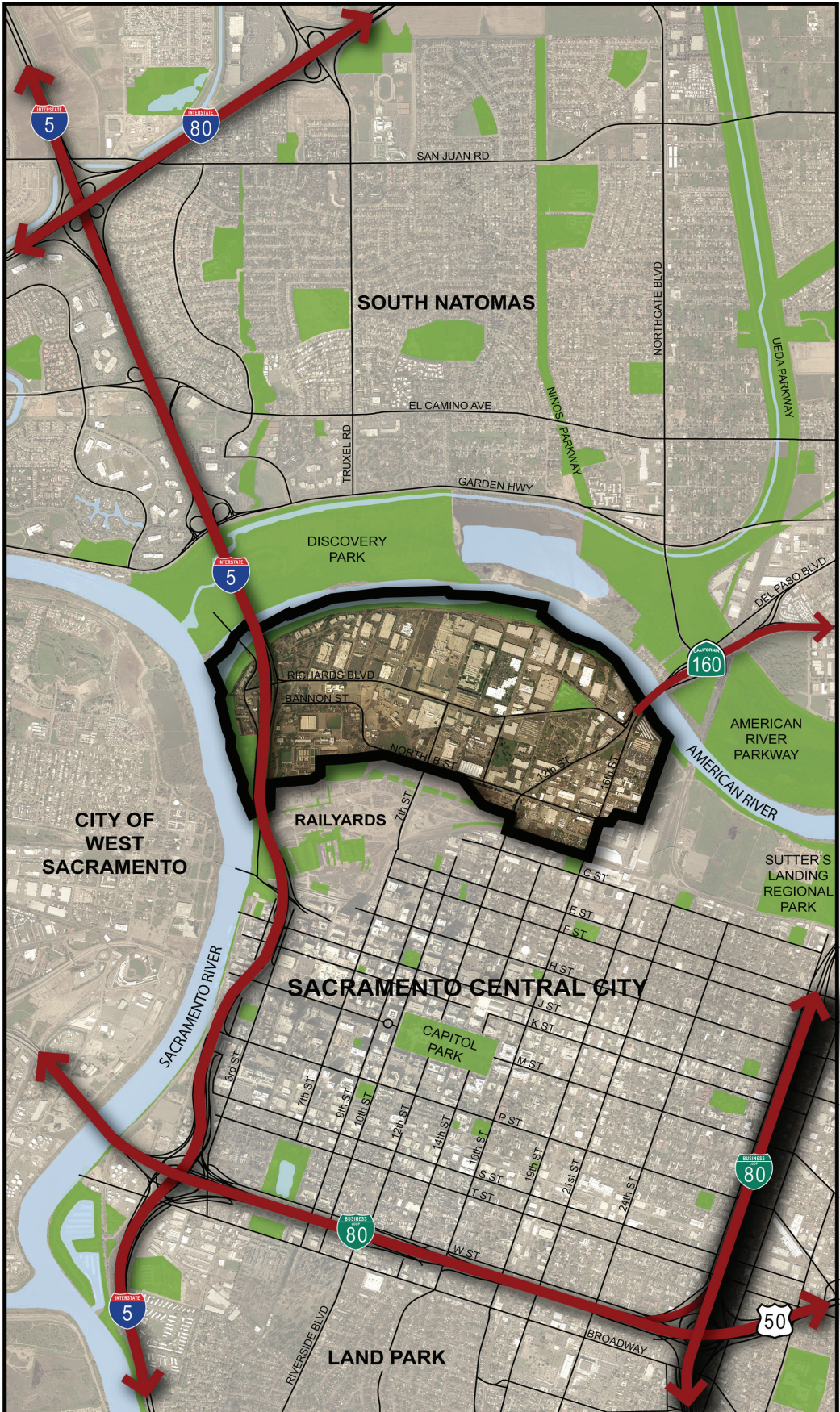


Figure 4-3: Location Map



5.0: INTRODUCTION TO THE ANALYSIS

Chapter 5.0	<i>Introduction to the Analysis</i>
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Chapters 5.1 through 5.10 are considered the technical chapters of this environmental impact report (EIR) because these analyze the potential environmental impacts related to the construction and implementation of the proposed River District Specific Plan.

Each chapter begins with a description of the environmental setting for the issue area. This section describes the physical environmental conditions of the project area, and the vicinity, as they existed at the time the Notice of Preparation was published (June 2, 2009). This constitutes the “baseline” physical conditions by which the City determines whether an impact is significant.

The regulatory context comes next. This section of the chapter provides the federal, State, and local regulations that would apply to the proposed RDSP project and that could reduce or eliminate potentially significant impacts. The impact analyses assume compliance with these regulations. This section also informs the reader of the applicable General Plan policies, and Community Plan policies, if any.

The next section consists of the impact analyses and the proposed mitigation measures. The following table appears at the beginning of each impact analysis and provides the reader of a summary of the impact analysis:

Impact Number	Impact Statement (what impact is being analyzed)	
	Informs whether the Central City Community Plan Area generates more or additional impacts than the remainder of the City	
Mitigation/ polices included in General Plan MEIR applicable to project	Includes mitigation from General Plan and policies that would directly mitigate/eliminate significant impacts of project	
Project significance after mitigation/ policies included in General Plan MEIR	<i>Potentially Significant or Less than Significant</i>	
Additional Mitigation for Project	Mitigation Measure Number	<i>Text of the mitigation</i>
Residual Significance	<i>The level of environmental impact after implementation of the mitigation/policies included in the General Plan MEIR and proposed mitigation for the RDSP project.</i>	

Terminology Used in the Document

Thresholds of Significance:

The thresholds of significance serve as the basis for judging the level of significance of an impact. Each technical chapter states the thresholds used for the evaluation of the impacts for that particular environmental effect.

Less than Significant Impact:

Construction and implementation of the proposed RDSP would not result in substantial adverse changes to the existing environmental conditions.

Potential Significant Impact:

The RDSP could cause a substantial adverse change to existing environmental conditions that can be mitigated to less-than-significant levels through implementation of feasible mitigation measures.

Significant Impact

A significant impact is a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the proposed RDSP.

Significant and Unavoidable Impact

Significant and Unavoidable impacts result in substantial adverse changes to the existing environmental conditions that cannot be mitigated to a less-than-significant level with implementation of all feasible mitigations measures.

Cumulative Impact

Cumulative impacts are those that occur from the incremental effect or impact of the project when added to, or combined with, other closely related past, present and reasonably foreseeable future projects outside of the boundaries of the RDSP project area. Cumulative impacts can result from individually minor, but collectively significant, project taking place over a period of time. If a cumulative impact is determined to be significant, the cumulative analysis evaluates whether the contribution of the proposed RDSP is “cumulatively considerable”. If the contribution is not considerable, the cumulative impacts is deemed less than significant. If the contribution is considerable, the EIR identifies feasible mitigation measures that could reduce the magnitude of the contribution to a less-than-considerable level.

Mitigation Measure

‘Mitigation’ includes:

- Avoiding the impact altogether by not taking a certain action or parts of an action

Introduction to the Analysis

- Minimizing impacts by limiting the degree or magnitude of the project and its implementation
- Rectifying the impact by repairing, rehabilitation, or restoring the impacted environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

5.1: AIR QUALITY

Chapter 5.1

Air Quality

This chapter evaluates the potential for the buildout of the proposed RDSP to conflict with or obstruct implementation of applicable air quality plans; to violate an air quality standard or contribute substantially to an existing or projected air quality violation; to result in a cumulatively considerable net increase of greenhouse gases or any criteria pollutant for which the project region is in nonattainment; or expose sensitive receptors to substantial pollutant concentrations.

The chapter was prepared using methodologies and assumptions recommended within the indirect source review guidelines of the Sacramento Metropolitan Air Quality Management District (SMAQMD). In keeping with the SMAQMD guidelines¹, the Air Quality chapter describes existing air quality, construction-related air quality impacts resulting from grading and equipment emissions, direct and indirect emissions associated with the RDSP, the impacts of these emissions on both the local and regional scale, and mitigation measures to reduce or eliminate any identified significant impacts. In addition, this chapter discusses the project's contribution to greenhouse gas emissions.

This chapter is based on the *Sacramento 2030 General Plan*, the *Sacramento 2030 General Plan Master EIR*, and the April 2010 *Air Quality Assessment for the River District Specific Plan Sacramento, California* prepared by AECOM.

The MEIR for the 2030 General Plan is hereby incorporated by reference, in particular, Chapter 6.1, Air Quality.

The General Plan analyzed the potential for the development in accordance with the Plan's land use designations to conflict with, or obstruct implementation of, an applicable air quality plan. The General Plan is based on the promotion of "Smart Growth Principles" for future development. Implementation of policies in the 2030 General Plan would directly promote improvements in regional air quality. Because the proposed RDSP is consistent with the General Plan land use designations assumed for the project area, the project would not conflict with or obstruct implementation of an applicable air quality plan. For this reason, this issue is fully analyzed in Impact 6.1-1 of the General Plan MEIR (Page 6.1-10) and no further analysis is necessary for the proposed RDSP.

Comments received in response to the NOP (see Appendix A) included statements by SMAQMD that the proposed RDSP should:

- Maximize the connectivity for bicyclists and pedestrians to surrounding neighborhoods
- Include evaluation of sensitive land use compatibility with toxic air contaminant (TAC) exposure for both roadway and rail lines
- Include a discussion of climate change
- Include an evaluation of short term construction impacts and long-term operational impacts using the SMAQMD's thresholds of significance.

Comments in response to the NOP from Sacramento Regional Transit identified reducing vehicle miles travelled and improving bicycle and pedestrian infrastructure to reduce greenhouse gases.

¹ Sacramento Metropolitan Air Quality Management District (SMAQMD), *Guide To Air Quality Assessment in Sacramento County*. December 2009.

This chapter addresses the above comments.

Environmental Setting

The project area is located within the Sacramento Valley Air Basin (SVAB). Local air quality is mainly influenced by regional climate, topography, and pollutant sources. The physical characteristics of the Sacramento Valley and the surrounding region have the potential for high concentrations of pollutant, which are emitted locally and from areas outside the SVAB. The physiographic features giving shape to the SVAB are the Coast Range to the west, the Sierra Nevada to the east, and the Cascade Range to the north. These ranges channel winds through the Sacramento Valley, but also inhibit dispersion of pollutant emissions.

Stationary and Mobile Sources of Air Pollutants

Air pollutant emissions within the SVAB are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources are usually subject to a permit to operate from the local air district, occur at specific identified locations, and are usually associated with manufacturing and industry.

Area sources are widely distributed and produce many small emissions and do not require permits to operate from any air agency. Examples of area sources include residential and commercial water heaters, painting operations, portable generators, lawn mowers, and consumer products such as barbeque lighter fluid and hairspray. The wide-spread use of these items and operations contributes to local and regional air pollution.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources are those that are legally operated on roadways and highways. Off-road sources include construction vehicles. Mobile sources account for the majority of the air pollutant emissions within the SVAB.

Ambient Air Quality Standards

Both the federal and the State governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. The national and State ambient air quality standards have been set at levels at which concentrations could be generally harmful to human health and welfare and to protect the most sensitive persons from experiencing health impacts.

The air pollutants of concern (criteria pollutants) for the RDSP area include ozone (O₃), carbon monoxide (CO), and particulate matter (PM).

- Ozone is a gas that is formed when reactive organic gases (ROGs) and nitrogen oxides (NO_x), both byproducts of internal combustion engine exhaust and other processes, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- Carbon Monoxide is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the SVAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

- Particulate Matter (PM₁₀) and Fine Particulate Matter (PM_{2.5}) consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter. Some sources of suspended particulate matter, like pollen and windstorms, occur naturally. However, in populated areas, most fine suspended particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.

Regional and Local Air Quality

The California Air Resources Board (CARB) collects ambient air quality data through a network of air monitoring stations throughout the State. This data are summarized annually and are published in the CARB's California Air Quality Data Summaries. Three monitoring stations are located in the City: 1) northern portion of Sacramento at 3801 Airport Road, 2) downtown at 1309 T Street, and 3) at 2221 Stockton Boulevard, just east of Highway 99. Monitoring data for the years 2004 through 2006 are presented in Table 5.1-1 below. As shown, the Sacramento area has a recent history of exceeding the federal and State ozone and particulate matter standards, although the standards for CO have not been exceeded during this time.

Table 5.1-1				
Summary of Ambient Air Quality Monitoring Data in the Sacramento Valley Basin				
Pollutant	Air Quality Standards	Year		
		2006	2007	2008
Ozone				
Maximum 1-hour concentration		0.143	0.138	0.166
# of days exceeding State 1-hour standard.	>0.09 ppm	44	15	42
Maximum 8-hour concentration.		0.115	0.123	0.123
# of days exceeding national 8-hour standard ¹ .	>0.075 ppm	68	34	56
# of days exceeding State 8-hour standard	>0.070 ppm	88	61	79
Carbon Monoxide (CO)				
Maximum 8-hour concentration		3.15	5.58	1.83
# of days exceeding national 8-hour standard	≥9.0 ppm	0	0	0
# of days exceeding State 8-hour standard	>9.0 ppm	0	0	0
Respirable Particulate Matter (PM₁₀)				
Maximum 24-hour concentration		111	119	355
# of days exceeding national standard	>150 µg/m ³	*	*	*
# of days exceeding State standard	>50 µg/m ³	53.3	36.4	68.7
Fine Particulate Matter (PM_{2.5})				
Maximum 24-hour concentration measured		78.0	61.0	200.2
# of days exceeding national standard	>35 µg/m ³	28.8	27.6	36.5
Notes:				
1. 2008 National 8-hour concentration				
µg/m ³ = micrograms per cubic meter of air.				
ppm = parts by volume per million of air.				
PM ₁₀ statistics may include data that are related to an exceptional event.				
*There was insufficient (or no) data available to determine the value.				
Source: California Air Resources Board, www.arb.ca.gov/adam , accessed April 14, 2010.				

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. They include both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, and painting operations. TACs are different than the “criteria” pollutants previously discussed in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics and their effect on health tend to be local rather than regional.

Sensitive Receptors

Sensitive receptors to air emissions include residences, schools, playgrounds, child care centers, athletic facilities, and rehabilitation centers.

Construction Emissions

Construction activities have the potential to generate a substantial amount of air pollution. Even though the generation of construction-related emissions is temporary in nature, the emissions contribute to the overall inventory for Sacramento County. The most common construction activities include site preparation, earthmoving, paving of roadway surfaces, the erection of buildings and structures, and the application of architectural coatings. Earthmoving activities may consist of grading, trenching, soil compaction, and cut and fill operations. Site preparation includes activities such as general land clearing and grubbing. Some projects may also entail the demolition of buildings prior to site preparation.

The emissions generated from common construction activities include:

- Exhaust emissions of particulate matter (PM) and oxides of nitrogen (NO_x) from fuel combustion for mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, material delivery trucks, and worker commute trips;
- Fugitive PM dust from soil disturbance and demolition activity; and
- Evaporative emissions of reactive organic compounds (ROG) from paving activity and the application of architectural coatings. The application of architectural coatings is typically the largest source of ROG emissions during construction activity.

Regulatory Context

The following regulations related to air quality would be applicable to the Proposed Project, during construction and/or implementation of development in accordance with the RDSP.

Federal

There are no federal regulations that are directly applicable to the Proposed Project for air quality.

State

California Air Resources Board (CARB)

The CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, the CARB sets State ambient air quality standards, compiles emission inventories, and provides oversight of local programs. The CARB also has primary responsibility for the development of the State Implementation Plan, for which it works closely with the federal government and the local air districts.

Local

Sacramento Metropolitan Air Quality Management District (SMAQMD)

The SMAQMD is the primary agency responsible for planning to meet federal and State ambient air quality standards in the Sacramento region. The SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the SIP for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the federal Clean Air Act requirements to attain and maintain the federal ozone standard. The Sacramento region has been designated as a "serious" nonattainment area for this standard.

The SMAQMD developed a set of guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and stationary sources of TACs, and also make recommendations for conducting air quality analyses.

The SMAQMD also enforces air quality Rules and regulations and implements a number of programs to provide incentives for the replacement or retrofit of older diesel engines and to influence land use development in the Sacramento region. Some of the relevant District Rules relating to development projects consist of:

Rule 201 – General Permit Requirements

The purpose is to provide an orderly procedure for the review of new sources of air pollution and of the modification and operation of existing sources through the issuance of permits.

Rule 403 – Fugitive Dust

This rule requires reasonable precautions to prevent the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, or clearing of land activity. Reasonable precautions include, but are not limited to:

- Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of
- roadways or the clearing of land. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials
- stockpiles, and other surfaces which can give rise to airborne dusts;
- Other means approved by the Air Pollution Control Officer.

Rule 442 – Architectural Coatings

The purpose is to limit the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.

Sacramento City Code

15.40.050 Control of dust and mud.

- Any person who has been issued a permit for any work covered by this code shall take reasonable precautions to prevent and control the movement of dust created by work activities to adjoining public or private property. Such dust shall be immediately settled by wetting the same. Work activities shall be stopped during periods of high winds that may carry dust from the job site before it can be settled by wetting.
- The permittee shall be responsible for maintaining clean public streets, sidewalks and alleys in the immediate vicinity of the job site during and after the period of work activity. The permittee shall remove all mud and dust from any public property which was deposited there by any activity related to the work. In order to prevent mud and other material from entering any public sewer, the permittee shall properly pond any affected gutter to permit such material to settle and shall remove such material from public property. This procedure shall be in accordance with the requirements and policies of the city water and sewer division. The permittee shall obtain any necessary permits for water from the manager of said division. See Section 15.44.170 of this title for additional requirements.

Sacramento 2030 General Plan Policies

The following General Plan policies are relevant to air quality and would apply to developments within the proposed RDSP area and: :

- ER 6.1.1 **Maintain Ambient Air Quality Standards.** The City shall work with the California Air Resources Board and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to meet State and Federal ambient air quality standards.
- ER 6.1.2 **New Development.** The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for reactive organic gases, nitrogen oxides and particulate matter (PM₁₀ and PM_{2.5}) through project design.
- ER 6.1.3 **Emissions Reduction.** The City shall require development projects that exceed SMAQMD ROG and NO_x operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project.
- ER 6.1.5 **Development near TAC Sources.** The City shall ensure that new development with sensitive uses located adjacent to toxic air contaminant sources, as identified by the California Air Resources Board (CARB), minimizes potential health risks. In its review of these new development projects, the City shall consider current guidance provided by and consult with CARB and SMAQMD.

- ER 6.1.6 **Sensitive Uses.** The City shall require new development with sensitive uses located adjacent to mobile and stationary toxic air contaminants (TAC) be designed with consideration of site and building orientation, location of trees, and incorporation of appropriate technology for improved air quality (i.e., ventilation and filtration) to lessen any potential health risks. In addition, the City shall require preparation of a health risk assessment, if recommended by Sacramento Metropolitan Air Quality Management District, to identify health issues, reduce exposure to sensitive receptors, and/or to implement alternative approached to development that reduces exposure to TAC sources.
- ER 6.1.9 **Greenhouse Gas Reduction in New Development.** The City shall reduce greenhouse gas emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio in each community; and other methods of reducing emissions.
- ER 6.1.11 **Coordination with SMAQMD.** The City shall coordinate with SMAQMD to ensure projects incorporate feasible mitigation measures if not already provided through project design.
- ER 6.1.14 **Zero-Emission and Low-Emission Vehicle Use.** The City shall encourage the use of zero-emission vehicles, low-emission vehicles, bicycles and other non-motorized vehicles, and car-sharing programs by requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.
- ER 6.1.15 **Preference for Reduced Emission Equipment.** The City shall give preference to contractors using reduced-emission equipment for City construction projects and contracts for services (e.g., garbage collection), as well as businesses which practice sustainable operations.

Impacts and Mitigation Measures

Thresholds of Significance

For the purposes of this EIR, impacts on air quality are considered significant if the proposed RDSP would result in:

- Short-term (construction) emissions of NO_x above 85 pounds per day;
- Long-term (operational) emissions of NO_x or ROG above 65 pounds per day; or
- Violation of any air quality standard or contribute substantially to an existing or projected air quality violation.
- PM₁₀ concentrations equal to or greater than five percent of the State ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard. However, the SMAQMD holds that if project emissions of NO_x and ROG are below the emission thresholds given above, then the project would not result in violations of the PM₁₀ ambient air quality standards;

- CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm); or
- Exposure of sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for toxic air contaminants (TAC). TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

Methodology

AECOM prepared the air quality technical study on which the potential impacts associated with the implementation of the RDSP is based (see Appendix B). The Urban Emissions Model, URBEMIS 2007 9.2.4 air quality emissions modeling software was used to determine the anticipated mass pollutant emissions. AECOM estimated the net change in criteria air pollutants and ozone precursor emissions associated with operation of the RDSP at buildout (estimated for year 2035) relative to existing conditions (year 2010). Pollutants analyzed include: ozone, carbon monoxide (CO), carbon dioxide (CO₂), oxides of nitrogen (NO_x), reactive organic gases (ROG), and particulate matter with an aerodynamic diameter less than 10 microns (PM₁₀ and PM_{2.5}).

Construction emissions were analyzed at a qualitative level because the timing, phasing, size, and type of projects developed in accordance with the RDSP are not currently known.

The long-term area and mobile source (operational) emissions are based on land use and traffic data provided by the City’s traffic consultant, Dowling Associates, Inc. The land use and traffic data bundled a number of entitled development projects into the RDSP area, including the Township 9 development. This means that for the RDSP buildout year 2035, the land use and traffic dataset includes development that previously went through environmental review and was entitled by the City (i.e., not specifically proposed as part of the RDSP project). Because an EIR was previously prepared for Township 9 (with an estimated buildout date of 2030), criteria air pollutants (CAP) and precursor emissions associated with Township 9 were subtracted from those modeled for the RDSP. Because data were not available to estimate the emissions associated with the RSDP development alone, the CAP, and precursor emissions associated with operation of the RSDP area at buildout are likely an overestimate; however, the modeled emissions represent realistic conditions within the project area upon RDSP buildout.

All air quality modeling was conducted in accordance with the SMAQMD’s recommendations in its *CEQA Guide to Air Quality Assessment*.

See Appendix B for detailed model input assumptions and model output.

Impact 5.1-1	Construction activities within the RDSP area could result in NO_x levels above 85 pounds per day.
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to construction-related air quality than area covered by the General Plan (Page 6.1-23).	
Mitigation and/or policies included in General Plan EIR applicable to project	ER 6.1.1 - Maintain Ambient Air Quality Standards ER 6.1.2 - New Development ER 6.1.11 - Coordination with SMAQMD ER 6.1.15 - Preference for Reduced Emission Equipment
Project significance after	<i>Potentially Significant</i>

<p>mitigation and/or policies included in General Plan EIR</p>	
<p>Additional Mitigation for Project</p>	<p>MM 5.1-1(a)</p> <p><i>The following shall be incorporated into all City construction contracts and included on all construction plans</i></p> <ul style="list-style-type: none"> • <i>Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.</i> • <i>Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.</i> • <i>Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.</i> • <i>Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).</i> • <i>All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.</i> • <i>Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.</i> • <i>Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.</i>
	<p>MM 5.1-1(b)</p> <p><i>The following shall be incorporated into all construction plans for projects that estimated construction related NO_x emissions exceed 85 lbs/day.</i></p> <p><i>Category 1: Reducing NO_x emissions from off-road diesel powered equipment</i></p> <p><i>The project shall provide a plan, for approval by the lead agency and SMAQMD, demonstrating that the heavy-duty (> 50 horsepower) self-propelled off-road vehicles to be used in the</i></p>

		<p><i>construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent particulate reduction¹ compared to the most recent CARB fleet average at time of construction; and</i></p> <p><i>The project representative shall submit to the lead agency and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.</i></p>
	<p>MM 5.1-1(c)</p>	<p><i>The following shall be incorporated into all construction plans for projects that estimated construction related NO_x emissions exceed 85 lbs/day.</i></p> <p><i>Category 2: Controlling visible emissions from off-road diesel powered equipment</i></p> <p><i>The project shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and the lead agency and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or state rules or regulations.</i></p> <p>and/or:</p> <p><i>If at the time of construction, the SMAQMD has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with SMAQMD prior to construction will be necessary to make this determination.</i></p>
	<p>MM 5.1-1(d)</p>	<p><i>The following shall be incorporated into all construction plans for projects that estimated construction related NO_x emissions exceed</i></p>

		<p><i>85 lbs/day.</i></p> <p><i>If projected construction related emissions for a project are not reduced below the 85 lbs/day by application of MM 5.1-1(b&c), then an off-site construction mitigation fee shall be applied. The construction mitigation fee shall be calculated based upon the SMAQMD's current construction mitigation fee at the time of project specific evaluation. Verification of payment of the mitigation fee shall be provided to the City prior to issuance of any grading permits</i></p>
Residual Significance	<i>Less than Significant</i>	

Air pollutant emissions of concern during construction activities consist of particulate matter (PM) and ozone precursors including oxides of nitrogen (NO_x) and reactive organic gases (ROG). PM is discussed in Impact Discussion 5.1-2. The SMAQMD has not developed a threshold of significance for ROG in construction equipment exhaust. Their main effort of ROG control is to limit the ROG in architectural coatings through Rule 442. However, heavy-duty diesel construction equipment emits substantial amounts of NO_x, and the SMAQMD has developed a threshold of 85 lbs/day for construction emissions of NO_x. Total construction emissions from all individual projects that would occur under the proposed RDSP were not estimated quantitatively because no project-specific information is available for a specific plan analysis.

For estimates of construction emissions to be meaningful and comparable to the significance thresholds, the size, type and schedule for every individual development project to be undertaken in the city over the next 25 years would have to be known in detail. Therefore, for this analysis, the acreage, or amount of land for each land use type (e.g., residential, commercial) under existing conditions and for buildout of the proposed RDSP are known. This is sufficient data to estimate stationary and mobile source operational emissions at full buildout, but not daily average emissions from construction (the quantity to which the SMAQMD threshold would apply) over the course of buildout. The time frame for development of the RDSP area is unknown and will be occur as property owners and developers bring proposals forward. Additionally, the backbone infrastructure, including water, sewer, and drainage services along with new roadways is known, but the construction schedule will be based upon private development being initiated. Because project specific detail is not available and much of the existing RDSP area is developed, URBEMIS modeling for construction activity was not conducted. The construction impacts discussion considers whether the SMAQMD construction thresholds would likely be exceeded for individual development projects.

Typical construction activities would not exceed the District's threshold of significance for NO_x. As a result the SMAQMD has developed a Screening Level Table (Table 5.1-2) for construction projects. Construction of projects below the screening levels presented in the NO_x Construction Screening Level Table would be considered to have a less than significant impact on air quality. However, all construction projects, including for projects that would be below the screening levels in the NO_x Construction Screening Level Table are required to implement the District's Basic Construction Emission Control Practices. While both Sacramento City Code Section 15.40.050 and the SMAQMD's District Rule 403 provide requirements for suppressing dust from development projects, the District's Basic Construction Emission Control Practices go beyond the suppression of dust and include minimizing idling of vehicles along with maintaining construction equipment in proper working condition. To ensure the compliance and for the ability to utilize the NO_x Construction Screening Levels (Table 5.1-2) for future construction projects in the RDSP area, Mitigation Measure 5.1-1(a) will require implementation of the Districts Basic Construction Emission Control Practices.

Table 5.1-2 SMAQMD NO_x Construction Screening Levels		
URBEMIS2007 Land Use Category	URBEMIS2007 Land Use	Screening Level Units
Residential	Single family housing	180 du
Residential	Apartment low rise	980 du
Residential	Apartment mid rise	1,895 du
Residential	Apartment high rise	2,100 du
Residential	Condo/townhouse general	960 du
Residential	Condo/townhouse high rise	2,100 du
Recreational	City park	60 acres
Recreational	High turnover Restaurant	1,307 ksf
Recreational	Hotel	2,614 rooms
Retail	Strip Mall	1,307 ksf
Retail	Supermarket	1,307 ksf
Retail	Convenience market with gas pumps	1,307 ksf
Commercial	General Office Building, Office Park	1,307 ksf
Commercial	Medical Office Building	1,307 ksf
Notes:		
du = dwelling units; ksf = thousand square feet.		
Source: SMAQMD, <i>CEQA Guide To Air Quality Assessment in Sacramento County</i> , December 2009		

Screening levels in the NO_x Construction Screening Level Table shall not be used to evaluate construction projects that meet one or more of the following conditions:

1. Include demolition activities;
2. A construction schedule that is unusually compact, fast-paced, or involves more than 2 phases (i.e., grading, paving, building construction, and architectural coatings) occurring simultaneously;
3. Simultaneous construction of multiple land use types;
4. Soil disturbance activity (i.e., grading) that exceeds 15 acres per day;
5. Cut-and-fill operations (involving moving earth with haul trucks and/or flattening or terracing hills); and
6. Import or export of soil materials that would require a considerable amount of haul truck activity.

In cases where the applicability of the screening tables is in question, consultation with the SMAQMD is needed. Analysis of construction projects that include one or more of these conditions should proceed to performing a full, detailed construction emissions analysis, including a quantification of mass emissions of NO_x.

Many different types of construction equipment would be used in various combinations for the many individual development projects that are expected to occur in the RDSP area over the next 25 years. Much of this equipment likely would be diesel-fueled and would emit NO_x as part of the fuel-combustion process. The amount of NO_x emitted per day at any individual development project site would depend on the number and type of equipment used; specifically the total daily average construction NO_x for the entire RDSP area would depend on the number and intensity of concurrent individual development projects during the 25-year Plan horizon. Specific information on the construction schedules and equipment use by every development project that would be built in the RDSP area is currently not available.

SMAQMD developed standard construction mitigation measures that require project applicants to provide a plan, for approval by both the City and SMAQMD, that demonstrates that construction equipment would achieve an average 20-percent NO_x reduction and 45-percent PM reduction.

Another SMAQMD mitigation measure requires project applicants to submit a comprehensive inventory of all off-road construction equipment that would be used for an aggregate of 40 or more hours during any phase of the construction project. The equipment inventory must include the horsepower rating, engine production year, projected hours of use or fuel throughput for each piece of equipment, and its compliance status with respect to CARB emission reduction regulations for off-road diesel equipment. SMAQMD also limits vehicle idling time to five minutes or less.

For projects whose emissions still exceed SMAQMD's daily emission threshold of 85 lbs/day after implementation of the measures described above, SMAQMD requires the project applicant to pay into the SMAQMD's construction mitigation fund to offset construction-generated emissions of NO_x. Payment into the construction offset program allows the District to offset the contribution of NO_x associated with individual construction projects by removing other NO_x generating sources elsewhere in the air basin. Compliance with this measures set forth by the District is considered by the City and the District to mitigate NO_x associated with construction activities to a less-than-significant level.

In addition to the above mitigation measures, all projects are subject to SMAQMD rules and regulations in effect at the time of construction. A complete listing of current rules is available on the SMAQMD's website at www.airquality.org or by calling 916-874-4800. Specific rules that may relate to construction activities may include, but are not limited to:

Rule 201, General Permitting Requirements (including portable equipment)
Rule 403, Fugitive Dust

The RDSP includes Policy ER 6.1.1 and ER 6.1.2, which requires the City to maintain ambient air quality standards and to review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for ROG, NO_x and PM through project design; and Policy ER 6.1.11, which requires the City to coordinate with the SMAQMD to ensure that projects incorporate feasible mitigation measures to reduce emissions, if not already provided through project design. In addition, Policy ER 6.1.15 requires the City to give preference to contractors using reduced-emission equipment for City construction projects and contracts for services. These policies along with Mitigation Measures 5.1-1 (a - d), listed below, would provide for construction related air quality impacts to be reduced to a ***less than significant level***.

Mitigation Measures

5.1-1(a)

The following shall be incorporated into all City construction contracts and included on all construction plans

- *Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.*
- *Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.*
- *Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.*
- *Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).*

- *All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.*
- *Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.*
- *Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.*

5.1-1(b)

The following shall be incorporated into all construction plans for projects that estimated construction related NO_x emissions exceed 85 lbs/day.

Category 1: Reducing NO_x emissions from off-road diesel powered equipment

The project shall provide a plan, for approval by the lead agency and SMAQMD, demonstrating that the heavy-duty (> 50 horsepower) self-propelled off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent particulate reduction¹ compared to the most recent CARB fleet average at time of construction; and

The project representative shall submit to the lead agency and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.

5.1-1(c)

The following shall be incorporated into all construction plans for projects that estimated construction related NO_x emissions exceed 85 lbs/day.

Category 2: Controlling visible emissions from off-road diesel powered equipment

The project shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and the lead agency and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or state rules or regulations.

and/or:

If at the time of construction, the SMAQMD has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with SMAQMD prior to construction will be necessary to make this determination.

5.1-1(d)

The following shall be incorporated into all construction plans for projects that estimated construction related NO_x emissions exceed 85 lbs/day.

If projected construction related emissions for a project are not reduced below the 85 lbs/day by application of MM 5.1-1(b&c), then an off-site construction mitigation fee shall be applied. The construction mitigation fee shall be calculated based upon the SMAQMD's current construction mitigation fee at the time of project specific evaluation. Verification of payment of the mitigation fee shall be provided to the City prior to issuance of any grading permits

Impact 5.1-2	Construction within the RDSP could result in PM₁₀ concentrations that exceed acceptable thresholds.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to construction-related air quality than area covered by the General Plan (Page 6.1-23).		
Mitigation/Policies included in General Plan EIR applicable to project	ER 6.1.1 - Maintain Ambient Air Quality Standards ER 6.1.2 - New Development ER 6.1.11 - Coordination with SMAQMD ER 6.1.15 - Preference for Reduced Emission Equipment	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.1-2(a)	Comply with MM 5.1-1(a)
	MM 5.1-2(b)	<i>Grading and ground disturbance activities shall not exceed 15 acres per day for any individual development project.</i>
Residual Significance	<i>Less than Significant</i>	

Most construction sites in the RDSP Area would have to be graded and prepared for development. Additionally, many of the areas would require demolition of existing structures. Grading activities involve clearing and leveling the land using heavy equipment such as scrapers, bulldozers, and backhoes. As the ground is disturbed, fugitive dust or PM₁₀ is generated. The total amount of PM₁₀ generated is normally determined by the size of the graded area and the length of time of grading activities. The larger the area and the longer the grading operation, the more PM₁₀ is created. Particulate emissions also occur to a lesser extent during other construction phases.

The SMAQMD recommends that PM₁₀ emissions be addressed as a localized pollutant and considers PM₁₀ emissions to be significant at the project level if they would exceed the District's concentration based threshold of significance at an off-site receptor location. Because PM_{2.5} is a subset of PM₁₀, construction projects that do not generate concentrations of PM₁₀ that exceed the concentration-based threshold of significance would also be considered less than significant for PM_{2.5}. The SMAQMD recommends that all projects be modeled for PM₁₀ emissions generated from construction activities except those that implement all Basic Construction Emission Control Practices, which are included in MM 5.1-1(a), and the maximum daily disturbed area (i.e., grading, excavation, cut and fill) would not exceed 15 acres. Projects that meet these conditions are considered to not have the potential to exceed or contribute to the concentration based threshold of significance for PM₁₀ (and therefore, PM_{2.5}).

The SMAQMD has also developed Enhanced Fugitive PM Dust Control Measures for development projects that are listed below:

SOIL DISTURBANCE AREAS

- Water exposed soil with adequate frequency for continued moist soil. However, do not overwater to the extent that sediment flows off the site.
- Suspend excavation, grading, and/or demolition activity when wind speeds exceed 20 mph.
- Install wind breaks (e.g., plant trees, solid fencing) on windward side(s) of construction areas.
- Plant vegetative ground cover (fast-germinating native grass seed) in disturbed areas as soon as possible. Water appropriately until vegetation is established.

UNPAVED ROADS (ENTRAINED ROAD DUST)

- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
- Treat site accesses to a distance of 100 feet from the paved road with a 6 to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of the District shall also be visible to ensure compliance.

The proposed RDSP includes a number of policies designed to address this concern. Specifically, Policy ER 6.1.1, which requires the City to work with the CARB and the SMAQMD to meet and maintain state and federal ambient air quality standards; Policy ER 6.1.2, which requires City review of proposed development projects to ensure the construction and operational aspects of a project be designed to incorporate feasible measures that reduce emissions through project design; and Policy ER 6.1.11, which requires the City to coordinate with the SMAQMD to ensure that projects incorporate feasible mitigation measures if not already provided in project design. In addition, Policy ER 6.1.15 requires the City to give preference to contractors using reduced-emission equipment for City construction projects and contracts for services. Even with compliance with these policies, which would require implementation of feasible measures, including measures listed above the PM₁₀ standard could still be exceeded either from individual large projects or from concurrent projects. Therefore, this impact would be *significant*.

Mitigation Measure

5.1-2(a)

Comply with MM 5.1-1(a).

5.1-2(b)

Grading and ground disturbance activities shall not exceed 15 acres per day for any individual development project.

Compliance with RDSP policies, which requires implementation of feasible mitigation measures (MM 5.1-2(a & b)) to reduce PM₁₀ emissions, would result in reductions in construction PM₁₀ emissions from individual projects within the Policy Area to a *less than significant level*.

Impact 5.1-3	Implementation of the RDSP would result in operational emissions that could increase either of the ozone precursors, NO_x and ROG, above 65 pounds per day.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to air quality (Page 3.CC-11, General Plan)		
Mitigation and/or Policies included in General Plan EIR applicable to project	ER 6.1.1 - Maintain Ambient Air Quality Standards ER 6.1.2 - New Development ER 6.1.3 - Emissions Reduction ER 6.1.11 - Coordination with SMAQMD ER 6.1.14 - Zero-Emission and Low-Emission Vehicle Use ER 6.1.15 - Preference for Reduced Emission Equipment	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.1-3	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

Sacramento County is currently in nonattainment of the federal and state ozone standards. Operation of individual development projects built in the RDSP Area over the next 25 years would generate emissions of ROG and NO_x, the primary ozone precursors, in combination with emissions from existing land uses.

Most of the ozone precursor emissions from sources that the proposed RDSP would influence comes from two general source categories: (1) “area wide” sources (as defined in the CARB’s California Emission Forecasting System (CEFS),² this category would include pollutants generated from furnaces, water heaters/boilers, facility maintenance equipment, and consumer products) and (2) mobile sources (motor vehicle traffic). Combined, these sources make up the operational emission of ROG and NO_x emissions. Existing (year 2010) and future (year 2035) criteria air pollutants (CAP) and precursor emissions associated with the operation of the RDSP study area were modeled using the Urban Emissions Model (URBEMIS2007, Version 9.2.4) with traffic data provided by the City’s traffic consultant (Dowling Associates, Inc. 2010). All air quality modeling was conducted in accordance with the Sacramento Metropolitan Air Quality Management District’s (SMAQMD’s) recommendations in its CEQA Guide to Air Quality Assessment (SMAQMD 2009). See Appendix B for detailed model input assumptions and model output.

Table 5.1-3 shows the total ROG and NO_x emissions from “mobile” sources for all land uses in the RDSP Area under both the existing proposed 2035 Buildout conditions and the net change from existing to buildout. Table 5.1-4 shows the total ROG and NO_x emissions from “area wide” sources for all land uses in the RDSP Area under both the existing proposed 2035 Buildout conditions and the net change from existing to buildout.

² California Air Resources Board, Forecasted Emissions by Summary Category 2006 Almanac, page updated April 5, 2006, <www.arb.ca.gov/app/emsinv/fcemssumcat2006.php>, accessed May 2008 and July 20, 2010.

Table 5.1-3 Incremental Operational (Mobile-Source) CAP and Precursor Emissions from RDSP					
	ROG lb/day	NO_x lb/day	CO lb/day	PM₁₀ lb/day	PM_{2.5} lb/day
Annual Average Emissions					
Existing	953	1,117	11,179	1,276	247
2035	538	377	5,174	2,387	453
Net Change Due to Full Development of RDSP¹	-415	-740	-6,005	1,110	206
Notes:					
1 Negative values can be attributed to anticipated reductions in emission factors over the planning horizon, due to more stringent motor vehicle emissions control requirements.					
2 Values may not sum exactly due to rounding.					
Source: AECOM, <i>Air Quality Assessment for the River District Specific Plan Sacramento, California</i> , July 13, 2010					

Table 5.1-4 Incremental Operational (Area-Source) CAP, Precursor Emissions from RDSP					
	ROG lb/day	NO_x lb/day	CO lb/day	PM₁₀ lb/day	PM_{2.5} lb/day
Annual Average Emissions					
Existing	70	29	36	0	0
2035	480	139	90	0	0
Net Change Due to Full Development of RDSP	410	110	54	0	0
Notes:					
Values may not appear to sum correctly due to rounding.					
Source: AECOM, <i>Air Quality Assessment for the River District Specific Plan Sacramento, California</i> , July 13, 2010					

Tables 5.1-5 and 5.1-6 provide the total combined “operational” emissions for existing conditions of the RDSP Area and the 2035 buildout respectively.

Table 5.1-5 Annual Average Operational CAP and Precursor Emissions from RDSP (Existing Conditions)				
	ROG lb/day	NO_x lb/day	CO lb/day	PM₁₀ lb/day
RDSP				
Mobile-Source Emissions	953	1,117	11,179	1,276
Area-Source Emissions	70	29	36	0
Total Operational Emissions	1,024	1,146	11,215	1,276
Notes: Values may not sum exactly due to rounding. Source: AECOM, <i>Air Quality Assessment for the River District Specific Plan Sacramento, California</i> , July 13, 2010				

Table 5.1-6 Annual Average Operational CAP and Precursor Emissions from RDSP (2035)				
	ROG lb/day	NO_x lb/day	CO lb/day	PM₁₀ lb/day
RDSP				
Mobile-Source Emissions	538	377	5,174	2,387
Area-Source Emissions	480	139	24	0
Total Operational Emissions	1,018	515	5,264	2,387
Notes: Values may not sum exactly due to rounding. Source: AECOM, <i>Air Quality Assessment for the River District Specific Plan Sacramento, California</i> , July 13, 2010				

Because the RDSP Area has some significant projects that have been approved and are under construction (Township 9 Project), emissions calculated from the operation of buildout of Township 9 were provided as shown in Table 5.1-7.

Table 5.1-7 Annual Average Operational CAP and Precursor Emissions from Township 9 (2030)				
	ROG lb/day	NO_x lb/day	CO lb/day	PM₁₀ lb/day
Operational Phase B				
Mobile-Source Emissions	212	341	2,591	246
Area-Source Emissions	169	49	24	1
Total Operational Emissions	381	390	2,615	247
Notes: Values may not sum exactly due to rounding. Source: AECOM, <i>Air Quality Assessment for the River District Specific Plan Sacramento, California</i> , July 13, 2010				

Based upon the Township 9 project having an air quality analysis that evaluated construction and operation of that project, the emissions calculated for operation were subtracted from the RDSP 2035 Buildout to provide a net annual operational emissions figure for the RDSP (Table 5.1-8). As a result net buildout emissions for the RDSP are shown to be 637 lbs/day of ROG and 125 lbs/day of NO_x, which exceed the SMAQMD threshold of 65 lbs/day. However, when the RDSP 2035 buildout emissions are evaluated against the existing conditions, the net emissions are reduced in both ROG and NO_x as shown in Table 5.1-9.

Table 5.1-8				
Net Annual Operational CAP and Precursor Emissions RDSP 2035 Minus Township 9 (2030)				
	ROG lb/day	NO_x lb/day	CO lb/day	PM₁₀ lb/day
Township 9 (2030) Operational Emissions	381	390	2,615	247
RDSP 2035 Operational Emissions	1,018	515	5,264	2,387
Total Operational Emissions	637	125	2,649	2,140
Notes: Values may not appear to sum correctly due to rounding. Source: AECOM, <i>Air Quality Assessment for the River District Specific Plan Sacramento, California</i> , July 13, 2010				

Table 5.1-9				
Annual Net Total Operational (CAP and Precursor) Emissions from RDSP (2035)				
	ROG lb/day	NO_x lb/day	CO lb/day	PM₁₀ lb/day
RDSP				
Existing Total Operational Emissions	1,024	1,146	11,215	1,276
RDSP 2035 Total Operational Emissions Minus Township 9 (2030)	637	125	2,649	2,140
Total Operational Emissions	-387	-1,021	-8,566	864
Notes: Values may not sum exactly due to rounding. Source: AECOM, <i>Air Quality Assessment for the River District Specific Plan Sacramento, California</i> , July 13, 2010				

The proposed RDSP includes Policy ER 6.1.3, which requires development projects that result in substantial air quality impacts (i.e., exceeding the SMAQMD ROG and NO_x operational thresholds) to incorporate design or operational features that result in at least a 15 percent reduction in emissions; Policy ER 6.1.2, which requires City review of proposed development projects to ensure construction and operation of projects incorporate feasible measures that reduce emissions through project design; and Policy ER 6.1.11, which requires the City to coordinate with the SMAQMD to ensure projects incorporate feasible mitigation measures if not already provided for through project design. As shown in the tables above and discussed in the project description, the RDSP has been planned to provide a mixture of land uses, which reduces vehicle miles traveled that provides a reduction of criteria air pollutant emissions. The RDSP also contains policies ER 6.1.14 that encourage the City to

require sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate zero and low emission vehicles. Additionally, ER 6.1.15 requires the City to give preference to contractors for City services as well as businesses that practice sustainable operations.

As shown, by considering and implementing the policies of the General Plan in the development of the RDSP, the net emissions of ozone precursors from all land uses after implementation and buildout of the RDSP would decrease from existing conditions. As a result, the implementation of the RDSP would have a net negative level of operational emissions of ROG and NO_x, below 65 pounds per day. The implementation of the RDSP would result in **less than significant impact** from operational emissions of ROG and NO_x.

Mitigation Measure

None required.

Impact 5.1-4	Implementation of the RDSP could result in CO concentrations that exceed the 1-hour state ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour state ambient standard of 9.0 ppm.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to air quality (Page 3.CC-11, General Plan)		
Mitigation/Policies included in General Plan EIR applicable to project	ER 6.1.1 - Maintain Ambient Air Quality Standards ER 6.1.11 - Coordination with SMAQMD ER 6.1.14 - Zero-Emission and Low-Emission Vehicle Use ER 6.1.15 - Preference for Reduced Emission Equipment	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.1-4	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

Motor vehicles are the primary source of CO, a pollutant that has its highest ambient concentrations near congested intersections. Development allowed under the proposed RDSP would add traffic to and alter traffic flows on the City’s road network. Existing CO levels in Sacramento are relatively low (see Table 5.1-1) and CO emission rates from vehicles that travel on city roadways, as estimated by EMFAC 2007, are expected to decline substantially from their present average values. Additionally, as shown in the tables above, operational emissions of CO would be reduced by more than half of the existing emissions, at buildout of the RDSP. CO emissions would actually decrease from the existing levels.

The RDSP and General Plan include the following policies that would help maintain acceptable air quality levels and reduce motor vehicle trips and traffic congestion: Policy ER 6.1.1, requires the City to meet and maintain state and federal ambient air quality standards; Policy ER 6.1.14, requires the City to encourage the use of zero-emission vehicles, low-emission vehicles, bicycles and other non-motorized vehicles, and car sharing programs through requiring infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles; and Policy ER 6.1.15, requires the City to give preference to contractors for City services as well as businesses that practice sustainable operations.

As shown the Land Use and Zoning of the Plan, the RDSP provides a mix of uses and a gridded street plan that provides for improved pedestrian walkability and a greater ease for bicycling. These characteristics of the RDSP help to encourage alternative forms of transportation for the future residents and employees of the Plan Area and at the same time help to reduce vehicle miles travelled.

Based upon the design of the RDSP and with the implementation of these policies, future (2035) CO concentrations would not exceed the CAAQS. This would be considered a ***less-than-significant impact***.

Mitigation Measure

None required.

TACs have no ambient air quality standards. Consequently, any development allowed under the proposed RDSP that would cause a TAC exposure exceeding the SMAQMD quantitative cancer risk thresholds would be significant. This possibility is evaluated in Impact 5.1-5 below.

Impact 5.1-5	Implementation of the RDSP would result in TAC emissions that could adversely affect sensitive receptors.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to air quality (Page 3.CC-11, General Plan)		
Mitigation/Policies included in General Plan EIR applicable to project	ER 6.1.5 - Development near TAC Sources ER 6.1.6 - Sensitive Uses ER 6.1.11 - Coordination with SMAQMD ER 6.1.15 - Preference for Reduced Emission Equipment	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.1-5	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

One of the California Air Resources Board’s (CARB’s) highest public health priorities is reducing diesel particulate matter (DPM) generated by trucks, which is one of the primary toxic air contaminant (TAC) found to be responsible for most of the cancer and non-cancer health risks associated with airborne exposures. There are also other key TACs associated with specific types of facilities (e.g., dry cleaners, gas stations, chrome plating facilities) that are the focus of the CARB’s control efforts. Regulations to reduce TAC emissions from such sources are in place, but significant reductions are expected to take considerable time. In the interim, the CARB has made specific recommendations to land use agencies to consider proximity to existing sensitive uses when siting new TAC-emitting facilities or proximity to TAC-emitting facilities when siting new sensitive land uses.

The CARB has issued a guidance document on air quality and land use entitled *Air Quality and Land Use Handbook: A Community Health Perspective*, which recommends that sensitive land uses not be located within 500 feet of a freeway and that a site-specific health risk assessment (HRA) be performed as a way to more accurately evaluate the risk. In response to this document, SMAQMD has developed a methodology to assist local land use jurisdictions in assessing the potential cancer risk of siting sensitive land uses adjacent to major roadways. This methodology is contained in SMAQMD’s *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, V2.3* January 2010 (Protocol). The methodology also provides a disclosure mechanism for those risks, and shows the relationship between potential cancer risk from DPM exposure and distance from a major roadway. According to the SMAQMD evaluation criteria, a site specific HRA is recommended only when cancer risks meet or exceed 281 cases per million.

The Protocol describes the process for determining if an HRA should be performed for potential exposure to sensitive receptors and provides a three step screening process that includes:

1. Determine if the nearest proposed sensitive receptor affected by the project is at least 500 feet from the nearest high traffic volume roadway (defined as a freeway, urban roadway with greater than 100,000 vehicles/day, or rural roadway with 50,000 vehicles/day). If the building envelopes are known and included in the application to the land use authority, the receptor should be placed at the building. Otherwise, the receptor should be placed at the edge of the property boundary. If the project is outside of the 500 foot distance, then the proposed project meets the ARB guidance distance and no further roadway-related air quality evaluations are recommended under this Protocol. If the project is within 500 feet, proceed to step 2. (SMAQMD now recommends that all projects within 500 feet consider mitigation.)
2. Using the screening process described herein, determine if the nearest sensitive receptor's increase in individual cancer risk is lower than the evaluation criterion of 281 chances per million (discussed in the following section) for recommending a site specific HRA. If lower risk, then no further roadway-related air quality evaluation is recommended under this Protocol and the projected cancer risk value and screening table used should be recorded in the environmental documentation. If higher risk, continue to step 3. *Note that the evaluation criterion of 281/million does not represent an acceptable cancer risk or a threshold of significance.*
3. Complete a site specific HRA using procedures in accordance with those described in this Protocol, and submit records in the environmental documentation.

The only roadway with an ADT over 100,000 vehicles/day is Interstate 5 (I-5) that travels north/south through the western portion of the RDSP area. No residentially designated land uses are located within 500 feet of the freeway. There is a small portion of proposed park along the American River that is within 500 feet of I-5, however, this area is park land connecting to the existing parkways and parks along the American River. There are also heavy railroad tracks that travel along the southeastern boundary of the RDSP area and then head north about 420 feet to the east of the Plan area. These tracks, owned by Union Pacific Railroad (UPRR), have about 20 trains that pass through on a daily basis. Proposed residential uses are located further than 500 feet away from the tracks. There is an existing residential development that is located just north of the tracks on Block 518 (see Figure 5.1-1; however, future development of the site would be subject to the land use requirements of the proposed designation of Light Industrial/Mixed-Use. As planned in the RDSP, residential uses would not be located in areas that are subject to TACs.

Several policies in the 2030 General Plan would help prevent significant TAC exposures including Policy ER 6.1.4, which requires the City to ensure that all land use decisions are made in an equitable fashion in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution; RDSP Policy ER 6.1.5, which requires that new development involving sensitive uses adjacent to TAC sources consider potential health risks and Policy ER 6.1.6 requires new development with sensitive uses located adjacent to mobile and stationary TACs be designed with consideration of site and building orientation, location of trees, and incorporation of appropriate technology for improved air quality (i.e., ventilation and filtration) to lessen any potential health risks. In addition, the City shall require the preparation of a health risk assessment if recommended by the SMAQMD, to identify health issues, reduce exposure to sensitive receptors, and/or implement alternative approaches to development that reduces exposure to TAC sources. In addition to the policies listed above are ER 6.1.11 Coordination with SMAQMD and 6.1.15 regarding the City to giving preference to contractors for City services as well as businesses that practice sustainable operations.

Implementation of RDSP policies and those contained in the 2030 General Plan would ensure that exposure to TACs is taken into account in planning for future projects and land use planning, and that precautions are taken to reduce potential health risks resulting from exposure to TACs. And as identified in the RDSP proposed sensitive residential uses are located greater than 500 feet from the sources of TAC in the RDSP area. As a result, the impact would be *less than significant*.

Mitigation Measure

None required.

Cumulative Analysis

Ozone precursors emitted anywhere in the (SVAB) can affect ozone air quality throughout the Valley. Therefore, the proposed project’s cumulative context for ozone precursor emissions would be existing and future development in the entire Sacramento Valley Air Basin. In contrast, CO, PM₁₀ and TAC effects are much more limited to the immediate vicinity of their specific sources. Consequently the proposed project’s cumulative context for CO, PM₁₀ and TAC emissions would be existing and proposed future development in the SVAB.

Impact 5.1-6	Implementation of the RDSP, in conjunction with other construction activities in the SVAB, would increase cumulative construction-generated NO_x levels above 85 pounds per day.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to air quality (Page 3.CC-11, General Plan)		
Mitigation/Policies included in General Plan EIR applicable to project	ER 6.1.1 - Maintain Ambient Air Quality Standards ER 6.1.2 - New Development ER 6.1.11 - Coordination with SMAQMD ER 6.1.15 - Preference for Reduced Emission Equipment	
Project significance after mitigation included in General Plan EIR	<i>Significant</i>	
Additional Mitigation for Project	MM 5.1-6	<i>Comply with MM 5.1-1 (a - d)</i>
Residual Significance	<i>Significant and Unavoidable</i>	

Construction activities for other projects outside of the RDSP Area that occur simultaneously with project construction within the RDSP Area would contribute emissions of NO_x. While those emissions would be temporary, combined they could exceed the SMAQMD thresholds. However, the SMAQMD oversees a large area outside of the RDSP Area boundaries that would require projects comply with SMAQMD mitigation requirements. It is anticipated that individual projects within the RDSP Area would comply with policies requiring implementation of feasible mitigation. Nonetheless, concurrent projects both within the RDSP Area as well as within the SVAB would likely exceed the SMAQMD significance threshold, resulting in a significant cumulative impact. As discussed in Impact 5.1-1, even with the imposition of SMAQMD-required NO_x mitigation measures, which would reduce actual construction emissions and provide offsets for remaining emissions exceeding the threshold, ozone precursors could be generated during project construction activities that exceed standards. Therefore, the project’s contribution to this cumulative impact would be considerable and this would be a *significant cumulative impact*.

Mitigation Measure

5.1-6

Comply with MM 5.1-1 (a - d).

Compliance with General Plan policies requiring implementation of SMAQMD standard mitigation measures (MM 5.1-1(a – d)) would result in reductions in construction emissions from individual projects in the RDSP Area including compliance with SMAQMD standard construction measures; payment into SMAQMD’s construction mitigation fund would reduce off-site sources to ensure that construction emissions would not result in substantial increases in ozone precursors in the air basin. However, there are no other feasible mitigation measures to ensure that construction emissions for multiple concurrent projects, including projects outside of the Policy Area, can be reduced below the 85 pounds per day threshold. Therefore, the project’s contribution to this impact would remain considerable and the impact would be ***significant and unavoidable***.

Impact 5.1-7	Implementation of the RDSP, in conjunction with other development in the SVAB, would increase cumulative operational levels of either ozone precursors, NO_x or reactive organic gases (ROG), above 65 pounds per day.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to air quality (Page 3.CC-11, General Plan)		
Mitigation/Policies included in General Plan EIR applicable to project	ER 6.1.1 - Maintain Ambient Air Quality Standards ER 6.1.2 - New Development ER 6.1.3 - Emissions Reduction ER 6.1.11 - Coordination with SMAQMD ER 6.1.14 - Zero-Emission and Low-Emission Vehicle Use ER 6.1.15 - Preference for Reduced Emission Equipment	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.1-7	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

As discussed in Impact 5.1-3, less than significant levels of ozone precursors NO_x or ROG would be generated by future development within the RDSP Area associated with mobile and stationary sources when compared to the existing conditions of the Plan area. According to the *SMAQMD Guide* development projects are considered cumulatively significant if the project would require a change in the existing land use designation (e.g., general plan amendment, rezone) and if the projected ozone precursor emissions from the new uses would be greater than the emissions anticipated for the site under the existing land use designation. The change in land use designations from what they were in the General Plan in effect when the regional Air Quality Attainment Plan (AQAP) was developed could jeopardize regional attainment of the ozone standards. Since the proposed RDSP will not require any 2030 General Plan amendments, but only specification of the land use designations and rezones for consistency, the RDSP Area would result in a decrease in ozone precursors, as quantified in Table 5.1-9, such emissions would be those consistent with the regional AQAP and the project’s contribution would be not be considerable. Therefore, cumulative long-term operational ozone precursor emissions would be considered a ***less than significant cumulative impact***.

Mitigation Measure

None required.

Impact 5.1-8	Implementation of the RDSP, in conjunction with other development in the SVAB, would emit particulate pollutants associated with construction activities at a cumulative level equal to, or greater than, five percent of the CAAQS (50 micrograms/cubic meter for 24 hours).	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to air quality (Page 3.CC-11, General Plan)		
Mitigation included in General Plan EIR applicable to project	ER 6.1.1 - Maintain Ambient Air Quality Standards ER 6.1.2 - New Development ER 6.1.11 - Coordination with SMAQMD ER 6.1.14 - Zero-Emission and Low-Emission Vehicle Use ER 6.1.15 - Preference for Reduced Emission Equipment	
Project significance after mitigation included in General Plan EIR	<i>Significant</i>	
Additional Mitigation for Project	MM 5.1-8	<i>Comply with MM 5.1-2(a & b)</i>
Residual Significance	<i>Significant and Unavoidable</i>	

As discussed in Impact 5.1-2, significant levels of particulate matter could be generated during project grading and other construction activities taking place within the RDSP Area. Those impacts could be reduced below a the significance threshold for individual projects through the implementation of the identified mitigation measures. However, PM₁₀ emissions from construction projects that occur simultaneously in the vicinity of one another and within the RDSP Area combined with development in the larger SVAB could have significant cumulative effects. Because the particulate matter emissions due to implementation of the RDSP and other development in the region could exceed established thresholds, its contribution would be considerable resulting in a ***significant cumulative impact***.

Mitigation Measure

Compliance with General Plan policies, which requires implementation of feasible mitigation measures, including MM 5.1-2(a & b) to reduce PM₁₀ emissions, would result in reductions in construction PM₁₀ emissions from individual projects within the RDSP Area. However, there are no other feasible mitigation measures to ensure that construction emissions for multiple concurrent projects, including those outside of the RDSP Area boundaries, can be reduced to ensure that PM₁₀ emissions would not exceed thresholds. Therefore, emissions of PM₁₀ in the Policy Area would remain cumulatively considerable and the impact would be ***significant and unavoidable***.

Impact 5.1-9	Implementation of the RDSP, in conjunction with other development in the SVAB, could result in CO cumulative concentrations that exceed the 1-hour State ambient air quality standard of 20.0 ppm or the 8-hour State ambient standard of 9.0 ppm.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to air quality (Page 3.CC-11, General Plan)		
Mitigation included in General Plan EIR applicable to project	ER 6.1.1 - Maintain Ambient Air Quality Standards ER 6.1.11 - Coordination with SMAQMD ER 6.1.14 - Zero-Emission and Low-Emission Vehicle Use ER 6.1.15 - Preference for Reduced Emission Equipment	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.1-9	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

Development occurring outside of the RDSP Area, but within the SVAB, in addition to projects occurring within the RDSP Area, would increase traffic and change traffic flows on the city's roadway network. Increasing traffic volumes and lowering the level of service at busy intersections would tend to increase local CO levels. However, existing CO levels in the Sacramento area are relatively low (see Table 5.1-1) and CO emission rates are expected to decline substantially from their present average values due to cleaner burning fuels. The project's contribution is not anticipated to be considerable and CO levels are not expected to exceed the NAAQS or CAAQS for CO. Therefore, this impact would be ***cumulatively less than significant.***

Mitigation Measure

None required.

Impact 5.1-10	Implementation of the RDSP, in conjunction with other development in the SVAB, would generate TAC emissions that could adversely affect sensitive receptors.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to air quality (Page 3.CC-11, General Plan)		
Mitigation included in General Plan EIR applicable to project	ER 6.1.5 – Development near TAC Sources ER 6.1.6 – Sensitive Uses ER 6.1.11 - Coordination with SMAQMD ER 6.1.15 - Preference for Reduced Emission Equipment	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.1-10	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

As discussed in Impact 5.1-5, significant TAC impacts could occur if sensitive land uses were sited too close to TAC-emitting sources, including major roadways. The increase in vehicles and trucks on major roadways in the RDSP Area would be a major source of mobile TAC. As shown in the proposed land uses for the RDSP, sensitive residential uses are not located within 500 feet of the sources of TACs.

Several policies in the 2030 General Plan and RDSP would help prevent significant TAC exposures including Policy ER 6.1.4, which requires the City to ensure that all land use decisions are made in an equitable fashion in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution; Policy ER 6.1.5, which requires that new development involving sensitive uses adjacent to TAC sources consider potential health risks; and Policy ER 6.1.6 requires new development with sensitive uses located adjacent to mobile and stationary TACs be designed with consideration of site and building orientation, location of trees, and incorporation of appropriate technology for improved air quality (i.e., ventilation and filtration) to lessen any potential health risks. In addition, the City shall require the preparation of a health risk assessment if recommended by the SMAQMD, to identify health issues, reduce exposure to sensitive receptors, and/or implement alternative approaches to development that reduces exposure to TAC sources. In addition to the policies listed above are ER 6.1.11 Coordination with SMAQMD and 6.1.15 regarding the City to giving preference to contractors for City services as well as businesses that practice sustainable operations.

Implementation of policies contained in the RDSP and the 2030 General Plan would ensure that exposure to TACs is taken into account in planning for future projects and land use planning, and that precautions are taken to reduce potential health risks resulting from exposure to TACs. As a result, the impact would be ***cumulatively less than significant***.

Mitigation Measure

None required.

Greenhouse Gas Emissions

State and Local Regulatory and Policy Framework for Greenhouse Gas Emissions Reductions

As discussed below, the City believes that the appropriate approach to addressing the issue of global warming is through the adoption of policies, ordinances, and regulations rather than the imposition of conditions on a project-by-project basis. The following polices, ordinances, and regulations form a part of the State and local regulatory and policy framework that is currently addressing the global warming issue. The following list is not a complete list; however, does provide examples of the primary regulations and policies enacted/adopted to reduce greenhouse gas emissions.

California Code of Regulations (CCR) Title 24, Part 6 (1978)

The CCR, Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, were first established, in response to a legislative mandate to reduce California's energy consumption. Energy efficient buildings require less electricity, and electricity production by fossil fuels results in greenhouse gas emissions. Therefore, increased energy efficiency results in decreased greenhouse gas emissions.

California Assembly Bill 1493 (2002)

This AB requires the CARB to develop and adopt regulations that reduce GHG emitted by passenger vehicles and light duty trucks. The US EPA has refused to grant a waiver to California to enable it to enforce these regulations. In turn, the State, in conjunction with fifteen other states, has filed suit to overturn the waiver refusal. The state and federal governments continue to wrestle with the issue.

Executive Order S-3-05

California Governor Schwarzenegger signed Executive Order (EO) S-3-05 in June 2005 in recognition of the risks associated with climate change. The EO established the following statewide greenhouse gas emission reduction targets:

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

The EO also directed the preparation of a report for the Governor and Legislature to define actions necessary to meet the targets.

California Assembly Bill 32 - The California Global Warming Solutions Act (2006)

AB 32 requires the CARB, the State agency charged with regulating Statewide air quality, to adopt rules and regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with the program. The rules and regulations are required to reduce greenhouse gas emissions to the extent maximally technologically feasible and cost effective to the statewide levels existing in 1990, by 2020. AB 32 focuses on reducing GHG emissions from stationary sources in California.

Executive Order S-01-07 (2007)

This EO requires that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 and requires that a Low Carbon Fuel Standard for transportation fuels be established for the State.

Senate Bill 1368

Senate Bill (SB) 1368 (2006) is the companion bill of AB 32 and addresses the problem arising from current law not addressing the GHG emissions associated with long-term financial commitments for the procurement of energy by California-based utilities and electricity providers.

Senate Bill 1078

SB 1078 addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators to provide a minimum 20-percent of their supply from renewable sources by 2017. SB 107 changed the target date to 2010.

City of Sacramento Resolution 2001-805 (2001) - Smart Growth Principles

In part to address deteriorating air quality issues, the City Council adopted Smart Growth Principles into the General Plan in 2001. Smart Growth changes development patterns by supporting projects that incorporate land uses, transportation management, and infrastructure that discourage urban sprawl and promote infill development, reduce vehicle emissions, and improve air quality.

The following principles are, or will be, implemented through a variety of City and regional plans, policies, and procedures to include the Sacramento 2030 General Plan, the 2005 Downtown Redevelopment Strategy, the Joint City/County Planning Principles for Natomas, the 2005-2010 Parks and Recreation Master Plan Air Quality/Transportation Collaborative, the Metropolitan Transportation Plan, the Pedestrian Master Plan, the Transit Village Initiative, Cool Communities, and the Comprehensive Infill Strategy:

- Mix land uses and support vibrant city centers;
- Take advantage of existing community assets emphasizing joint use of facilities;
- Create a range of housing opportunities and choices;
- Foster walkable, close-knit neighborhoods;
- Promote distinctive, attractive communities with a strong sense of place, including the rehabilitation and use of historic buildings;
- Preserve open space, farmland, natural beauty, and critical environmental areas;
- Concentrate new development and target infrastructure investments within the urban core of the region;
- Provide a variety of transportation choices;
- Make development decisions predictable, fair, and cost-effective;
- Encourage citizen & stakeholder participation in development decisions;
- Promote resource conservation and energy efficiency;
- Create a Smart Growth Regional Vision and Plan;
- Support high quality education and quality schools;
- Support land use, transportation management, infrastructure and environmental planning programs that reduce vehicle emissions and improve air quality; and

- Policies adopted by regional decision-making bodies should discourage urban sprawl, promote infill development and the concentration of development in the urban core of the region, and promote the equitable distribution of affordable housing and social services.

City of Sacramento Comprehensive Infill Strategy

The City's Infill Strategy adopts numerical and qualitative infill development goals, targets specific types of infill development, and offers focused procedural and financial incentives to help achieve infill development goals.

Sustainability Master Plan (2007)

As part of the Sustainability Master Plan, the City will integrate environmentally sustainable practices into City policies, procedures, and operations that will provide tools for measuring the City's progress towards sustainability. The foundation for the Sustainability Master Plan is the United Nations Environmental Accords, a set of 21 actions that the United Nations asked city governments to adopt and implement over a seven-year period. The City will incorporate the pertinent goals and targets identified in the Plan into the new update of the City's General Plan. The goals and targets will serve as a policy framework for the City to ensure that sustainability concerns are incorporated into the City's decision-making processes.

LEED Green Building Rating System

The City's Building Department is currently working on an ordinance to adopt the Leadership in Energy and Environmental Design (LEED) Green Building Rating System at the Silver certification standards for new buildings in the City. LEED is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings and promotes a whole-building approach to sustainability by recognizing performance in five key areas: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. To earn certification, a building project must meet certain prerequisites and performance credits within each category. Projects are awarded Certified, Silver, Gold, or Platinum certification depending on the number of credits they achieve. LEED Silver is awarded to projects that achieve at least 50 percent of the core credits available. Points are earned for certain efficiencies in categories such as Indoor Environmental Quality, Building Materials and Resources, and Energy and Atmosphere.

Metropolitan Transportation Plan

The City is a member of the Sacramento Area Council of Governments (SACOG), which covers a six-county area. SACOG adopted a Metropolitan Transportation Plan (MTP) to provide a regional vision for all modes of surface transportation and a guide for regional transportation investments. The MTP uses federal and state funds for programs designed to meet goals such as clean air; design of communities to encourage local pedestrian, bicycle, and transit travel; and for improvements to main routes that serve longer distance travel around the region - specifically freeways, rail lines, and major roadways and streets that serve regional traffic.

Discussion

Global climate change occurs, by definition, on a global basis. Greenhouse gases remain in the atmosphere for extended periods, and combine with GHG emissions from other areas of the globe, thus creating an inherently cumulative impact.

The 2030 General Plan and Master EIR recognized these unique aspects of the problem. The Master EIR acknowledges that the greenhouse gas emissions resulting from development that would be consistent with the 2030 General Plan would be cumulatively considerable, and significant and unavoidable. See Master EIR Errata 2, February 23, 2009.

In addition, at City Council direction, staff reviewed the various policies and implementation programs in the 2030 General Plan that could mitigate greenhouse gas emissions, and determined that a number of these policies could be revised. A list of such policies, and the changes that were made to respond to the continuing discussion of climate change, were included as part of the Mitigation Monitoring Plan that implemented mitigation identified in the Master EIR.

The 2030 General Plan calls for land use patterns that focus on infill and mixed-use development, thus supporting public transit and increasing opportunities for pedestrians and bicycle use; implementing quality design guidelines and “complete” neighborhoods and streets to enhance neighborhood livability and the pedestrian experience; adopting and enforcing “green building” practices including the adoption of a green building rating program adoption of ordinances and the use of recycled construction materials and alternative energy systems; and promoting adaptation to climate change, such as reducing the impacts from the urban heat island effect, managing water use, and increasing flood protection. Specific goals, policies, and programs targeting greenhouse gas reductions commit the City to AB 32 reduction targets, preparation of a greenhouse gas emissions inventory for existing land uses and 2030 General Plan build-out, reductions in greenhouse gas emission from new development, and adoption of a Climate Action Plan with on-going monitoring and reporting.

The 2030 General Plan promotes denser urban development within the current City territorial limits to accommodate population growth, which will reduce growth pressures and sprawl in outlying areas. While total greenhouse gas emissions within the General Plan policy area may increase over time due to growth in population in the region, this increase is less than what would have occurred if the 2030 General Plan were not adopted and development of more land in outlying areas had been permitted under the 1988 General Plan. Adoption of the 2030 General Plan put these key strategies in place immediately and has begun to shape development as well as the activities of day-to-day living and move the City and the region toward a more sustainable future.

Because the actual effectiveness of all the feasible policies and programs included in the 2030 General Plan that avoid, minimize, or reduce greenhouse gas could not be quantified, the impact was identified as a significant and unavoidable cumulative impact.

The 2030 General Plan Master EIR is incorporated here by reference as it relates to the general discussions regarding greenhouse gas emissions and climate change referenced in the discussion above. The Master EIR discussion includes an analysis of the following:

- Summary of current state of science regarding GHG and climate change;
- Description of the environmental setting that constitutes the physical baseline for analysis;
- Discussion of regulatory setting;
- Identification of threshold of significance to be used for the analysis;
- Discussion of cumulative contributions to GHG, mitigation and conclusion regarding significance.

The discussion below focuses on the RDSP in terms of the greenhouse gas emissions that could result from development projects which may occur in accordance with the new Specific Plan. In part, these GHG emissions are estimated based on land use and development assumptions for buildout of the RDSP in contrast to the existing land uses within the District and reflect the net change in GHG emissions.

The RDSP lays the policy and implementation framework for the evolution of the Plan area from a primarily light-industrial, low-intensity district, to a cohesive district with a mix of residential, commercial, industrial, public, and open space uses. The Specific Plan is to provide the general vision and broad policy concepts to guide development of a new neighborhood. The Plan will also establish details on the type, location, and intensity of uses, heights, and massing, as well as define the capacity and needed public improvements and infrastructure.

Finally, the Plan will identify the resources necessary to finance and implement the public improvements and infrastructure needed to support the vision for the new Specific Plan area.

This project would also provide the backbone infrastructure necessary for development of individual parcels in accordance with the Specific Plan. No parcels would be developed as part of this Proposed Project, instead the individual parcel owners would develop their parcels in accordance with the Specific Plan.

The RDSP supports the City’s effort to avoid sprawl and support alternative modes of transportation. The project supports the City’s effort to comply with statewide mandates regarding reduction of greenhouse gas emissions. The incremental operational GHG emissions associated with development of the RSDP (including mobile sources, area sources, residential and commercial electricity use, and water use are) in Table 7, which are estimated to be approximately 159,546 MT CO_{2e}/year as shown below.

Table 5.1-10 Incremental (2035 Minus Existing) Operational GHG Emissions from RDSP	
	CO_{2e} Emissions MT/year
Incremental Direct Operational Emissions	132,152
Incremental Indirect Operational Emissions (Residential and Commercial Electricity Consumption)	35,119
Incremental Indirect Operational Emissions (Water Pumping and Distribution) ¹	354
Total Incremental Operational Emissions	167,624
Notes: MT = metric tons Values may not appear to sum correctly due to rounding. ¹ The negative value for GHG emissions can be attributed to a decrease in water demand due to changes (reduction) in industrial land uses between existing (2009) and 2035 (buildout) conditions. Source: AECOM, <i>Air Quality Assessment for the River District Specific Plan Sacramento, California</i> , July 13, 2010	

GHG emissions associated with the operation of the RDSP study area were modeled using the Urban Emissions Model (URBEMIS2007, Version 9.2.4, Rimpco and Associates 2008) with traffic data provided by the City’s traffic consultant (Dowling Associates, Inc. 2010). Additionally, indirect GHG emissions associated with electricity demand were estimated using consumption rates from the California Energy Commission (California Energy Commission [CEC] 2000) and emission factors from the California Climate Action Registry (CCAR General Reporting Protocol, v 3.1, 2009).

Section 15183.5 of the CEQA Guidelines provides for use of tiering in the analysis of greenhouse gas (GHG) emissions. The section provides that local agencies may analyze and mitigate the significant effects of project-level greenhouse gas emissions at a programmatic level stage of evaluation, by incorporating such analysis by reference in subsequent project-specific documents. The Sacramento Metropolitan Air Quality Management District (SMAQMD) has also indicated that GHG emissions are best analyzed and mitigated at the program or area plan level. (SMAQMD CEQA Guide, December 2009)

However, neither the CEQA Guidelines nor the SMAQMD has identified a numeric level of GHG emissions to determine the level of significance, although SMAQMD has suggested several alternatives for local agencies to identify such a threshold with a qualitative standard. The City’s approach is consistent with the SMAQMD’s

CEQA Guide, which recommends that thresholds of significance for GHG emissions should be related to AB 32's GHG reduction goals. The Guide suggests that one possible threshold could be "...to determine whether a project's emissions would substantially hinder the State's ability to attain the goals identified in AB 32..." (CEQA Guide, page 6-11) Although the State Air Resources Board has not yet established the GHG emissions goal for the Sacramento region to implement AB 32, the SACOG Blueprint plan has been recognized as being consistent with the intent of AB 32 to reduce sprawl and encourage more transit-oriented and higher density mix of land uses to reduce vehicle emissions which contribute to GHG impacts.

In November of 2005, the City Council adopted a resolution committing the City to crafting a General Plan that would accommodate the SACOG Blueprint allocation of an additional 100,000 homes and 140,000 jobs consistent with adopted smart growth principles by the anticipated General Plan build-out date of 2030. The City Council approved the 2030 General Plan on March 3, 2009. As part of its action, the City Council certified the Master Environmental Impact Report (Master EIR) that evaluated the environmental effects of development that is reasonably anticipated under the 2030 General Plan. The Master EIR includes extensive discussion of the potential effects of greenhouse gas emissions. See, for example:

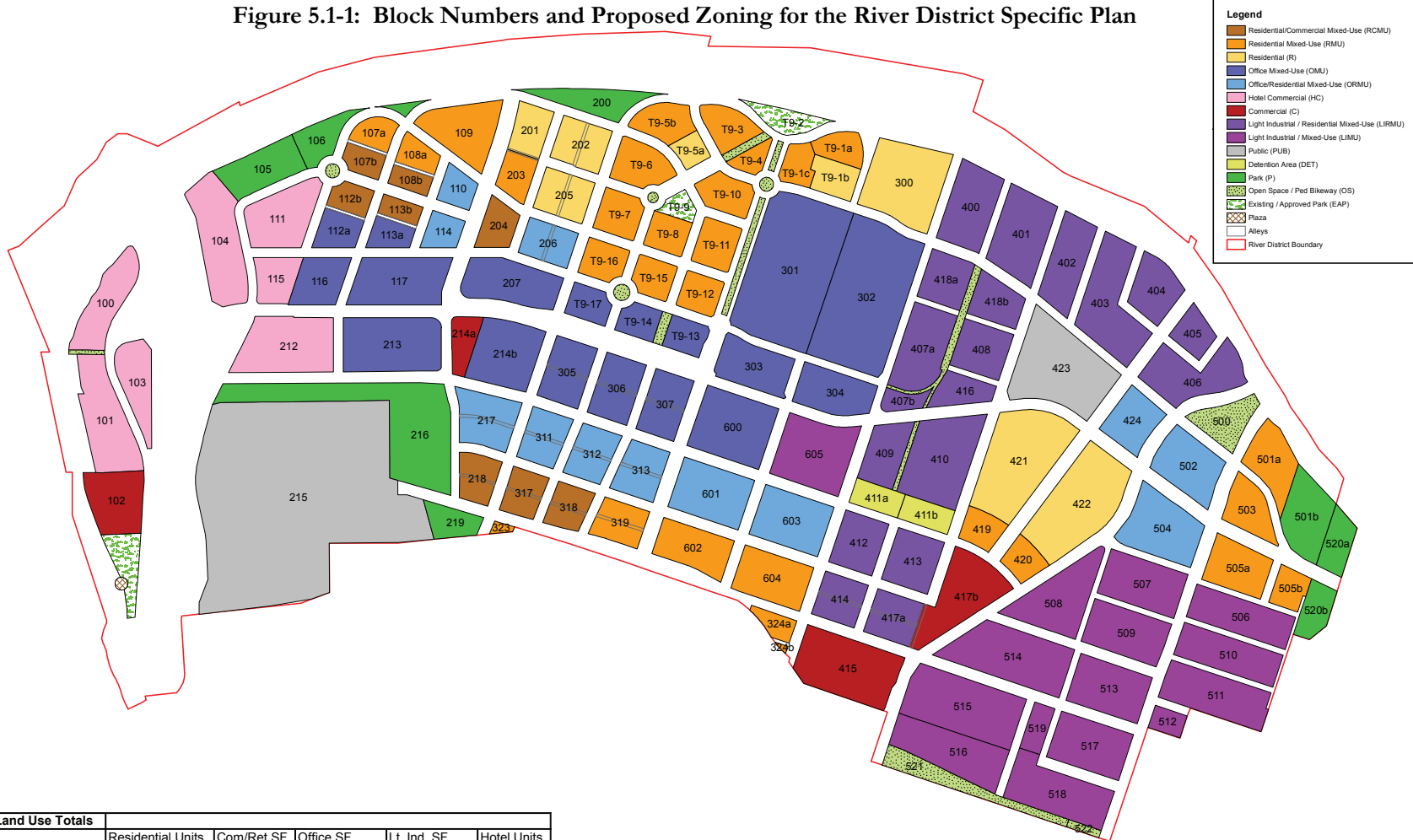
- Draft EIR: 6.1 Air Quality (Page 6.1-1)
- Final EIR: City Climate Change master Response (Page 4-1)
- Errata No. 2: Climate Change (Page 12)

These documents are available at:

www.cityofsacramento.org/dsd/planning/environmental-review/eirs/ and at the offices of the Community Development Department at 300 Richards Boulevard, Third Floor, Sacramento, California.

The underlying and substantial effort implemented by the City, a part of which is reflected in the RDSP, is ensuring that new development is designed to encourage use of alternative transportation modes to reduce vehicle miles, which are one of the major sources of greenhouse gas emissions. The RDSP would encourage infill development that facilitates use of alternative modes of transportation, including mixed-use development to place jobs near housing, and would support the ongoing efforts of the City to reduce greenhouse gas emissions through better planning. Also, the River District is located adjacent to the Central Business District which is accessible by existing and planned light rail and bus services. The Plan includes a substantial increase in housing, which will reduce existing commute distances or vehicle miles travelled. The RDSP is consistent with the City's, and the State's, efforts to comply with AB 32. The effects of such emissions on climate change are inherently cumulative, and there is no substantial evidence that emissions from any single development project within the District would have a significant effect on global climate change. The overall Plan's contribution to greenhouse gas emissions within the region, and climate change is, therefore, less than cumulatively considerable.

Figure 5.1-1: Block Numbers and Proposed Zoning for the River District Specific Plan



5.2: BIOLOGICAL RESOURCES

Chapter 5.2

Biological Resources

This section evaluates effects of the Proposed Project on biological resources within the Project Area. The considered resources include plant and animal species listed as threatened or endangered, proposed for federal and/or State listing as threatened or endangered, or any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS). Additionally, sensitive habitats, habitat for any of the listed or sensitive species described above, and wetlands or other waters under the jurisdiction of the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act (CWA) are considered significant biological resources.

Sources used in the analysis of noise include the City of Sacramento 2030 General Plan, the City of Sacramento 2030 General Plan EIR, and the Biological Resources Assessment for the River District Specific Plan prepared by AECOM, December 1, 2009.

The MEIR for the 2030 General Plan is hereby incorporated by reference, in particular, Chapter 6.3, Biological Resources.

As noted in Chapter 3, Project Description, the proposed RDSP would not disturb or develop lands on the river sides of the levees. Therefore, these analyses do not include the potential for direct biological impacts to the riparian resources within the RDSP area. However, because the great valley cottonwood riparian forest on the waterside of the American River has trees that are large enough to support raptors' nests, a protected species, the potential indirect effects on the species during nesting due to construction disturbances from the parcels on the land side of the RDSP are analyzed.

According to biological resource assessment, the only reptile with the potential to occur in the RDSP area is the western pond turtle¹, which lives in permanent or near-permanent aquatic habitats. Although the areas near the American and Sacramento Rivers provide the suitable habitat, the RDSP does not propose development or ground disturbance on the water side of the levees. For this reason, no impacts to the species are anticipated and the issue is not analyzed.

The potential impacts to special-status fish are not analyzed in the EIR because there is no development on the waterside of the levees and also because neither construction nor implementation of the RDSP would result in additional stormwater runoff to the rivers.

No special-status plants were observed during the reconnaissance survey, nor are they expected to occur because of the high level of ground disturbance in the project area.² These analyses do not include the potential for impacts to these species.

No wetlands were observed during the biological resource survey. For this reason, this issue is not addressed.

¹ AECOM, Biological Resources Assessment for the River District Specific Plan, Sacramento, CA, December 1, 2009, Page 9.

² AECOM, Biological Resources Assessment for the River District Specific Plan, Sacramento, CA, December 1, 2009, Page 2.

The California Department of Fish and Game (DFG) sent comments in response to the Notice of Preparation. Except as noted above, this chapter addresses these issues.

1. The natural habitats should be identified and the project's effects on their function and value should be addressed.
2. The impact on wetlands, including riparian habitat, should be addressed. The project should be designed to avoid wetlands.
3. The project's potential impacts on special status species should be analyzed, in particular the Swainson's hawk.
4. The project's growth inducing and cumulative impacts on fish, wildlife, water quality, and vegetative resources should be analyzed.
5. Specific alternatives to reduce impacts to fish, wildlife, water quality, and vegetative impacts should be analyzed.
6. Discuss whether the project would involve work undertaken in, or near, a water body.

The following comments are addressed as follows:

The analysis should contain an evaluation of the project's consistency with land use or species recovery plans, such as General Plans, Specific Plan, Habitat Conservation Plans, and Critical Habitat Designations. See Chapter 4 of this DEIR for a discussion of the project's consistency with land use plans, including the General Plan. There are no Habitat Conservation Plans or Critical Habitat Designations on the lands within the RDSP, so this issue is not addressed.

Fees assessed under Public Resources Code Section 21089 should be paid upon the filing of the Notice of Determination. These fees will be paid and the issue is not further addressed in this DEIR.

Environmental Setting

The habitat types in the RDSP area include developed, ruderal, elderberry savanna, great valley cottonwood riparian forest, riverine, and drainages (see Figure 5.2-2).

As previously noted, the riverine habitat and great valley cottonwood riparian forest are on the waterside of the Specific Plan area; therefore, the proposed project would not result in potential impacts to these habitats. These habitats are not included in the analyses.

Habitat Types

Developed

This is the dominant habitat type within the RDSP area. These areas are characterized by impervious surfaces, ornamental landscaping, and cultivated landscaping. Special-status species do not usually inhabit developed areas.

Developed areas that are not landscaped or subject to regular landscaping activities may contain elderberry shrubs, which could host valley elderberry longhorn beetles.

Ruderal

These are the small undeveloped parcels scattered among buildings. The habitat is dominated by nonnative species; however, valley oaks and elderberry shrubs are sometimes found. Burrowing owls are known to occupy ruderal areas.

Elderberry Savanna

The RSDP area east of 18th Street is considered an elderberry savanna. The California Natural Diversity Database lists this habitat type as a sensitive habitat. Elderberry shrubs dominate this area, which can house the valley elderberry longhorn beetle, a protected species. The area also includes scattered valley oaks.

Drainages

Figure 5.2-1 shows three drainages within the RDSP area. The two drainages located adjacent to I-5 will be removed and replaced with drainage basins as part of a separate project. Therefore, the RDSP will contain one drainage, just north of B Street, west of the intersection with 7th Street.

Special-Status Species

The burrowing owl, Swainson's hawk, white-tailed kite, and purple martin are species identified in the biological resources assessment as having the potential to occur on, or adjacent to, the RDSP area.

The valley elderberry longhorn beetle is federally listed as threatened. The species is almost always found on, or close to, its host plant, the elderberry. Several elderberry shrubs are present within the RDSP study area, in the elderberry savannah in the eastern portion of the plan area, and in scattered disturbed lots and ruderal fields.

Purple martins, a California species of special concern, nests in the region at bridges and elevated roadways that support vertical weep holes on the undersides. The I-5 bridges crossing the American River have several weep holes. These bridges could provide marginally suitable nesting habitat for this species.

The bridges could also provide marginal roosting habitat for bats. Other potential roosting sites include buildings and other human made structures, which may also function as maternity roosts. No bat species were observed in the project area during the reconnaissance survey; however, the survey was not conducted during the time of day when they would most likely be visible.

Burrowing owl is a California species of special concern. The species is known to nest and forage in ruderal habitat. The bird generally prefers to adopt burrows excavated by other animals, such as ground squirrels, but will use pipes, culverts, debris piles, and other artificial features in areas where burrows are scarce. No burrowing owls or owl-occupied burrows were observed during the biological reconnaissance; however, there are a few locations that could provide marginal habitat for the species.

Swainson's hawks are State listed as threatened. The bird typically appears in California during the breeding season (March through September).

Regulatory Context

The following regulations related to protection of biological resources would be applicable to the Proposed Project, during construction and/or implementation of development in accordance with the RDSP.

Federal

Federal Endangered Species Act (FESA)

The purpose of the FESA is to not only protect species, but also the ecosystems upon which they depend. Section 3 of the FESA defines a threatened species as one “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range”. Such species, as listed in the Federal Register, are fully protected from a “take” without an incidental take permit administered by the US Fish and Wildlife Service (USFWS) under Section 10 of the FESA. As used by the Act, “take” may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing breeding, feeding, or sheltering.

When non-Federal entities such as local governments and private landowners wish to conduct an otherwise lawful activity that might incidentally, but not intentionally, "take" a listed species, an incidental take permit (FESA section 10(a)(1)(B)) must first be obtained from the National Oceanic and Atmospheric Administration. Section 10(a) of the FESA empowers the USFWS to authorize incidental take of a listed species provided a conservation plan (CP) (aka habitat conservation plan (HCP)) is developed. CPs are designed to offset the harmful effects a proposed activity might have on listed species.

Migratory Bird Treaty Act (MTA)

The regulation seeks to protect migratory birds and active nests. This act makes it unlawful to “take” (kill, harm, harass, etc) any migratory bird listed in the Code of Federal Regulations. Disturbances causing nest abandonment and/or loss of reproductive effort may also be considered a “take”. The act covers over 800 species, including raptors and many common species that were observed within the RDSP area (Swainson’s hawks, white-tailed kite, and purple martins³).

State

California Endangered Species Act (CESA)

The California Department of Fish and Game administers the laws and programs designed to protect fish and wildlife resources. Principal among these is the California Endangered Species Act (CESA, Fish and Game Code, Section 2050), which regulates, the take of State endangered and threatened species.

California Fish and Game Code Sections 3503, 3503.5, and 3513

These sections of the Fish and Game Code protect resident and migratory game birds, including birds of prey (raptors). Sections 3503 and 3503.5 state that it is unlawful to take, possess, or needlessly destroy the nests or eggs of these birds, with exceptions within the Code.

Section 3513 states that it is unlawful to take any migratory non-game bird as designated in the MTA. These regulations could require that elements of the Proposed Project (particularly vegetation removal or construction near nest trees) be reduced or eliminated during the critical phases of the nesting cycle of certain birds, unless a survey by a qualified biologist demonstrates that nests, eggs, or nesting birds would not be disturbed.

³ AECOM, Biological Resources Assessment for the River District Specific Plan, Sacramento, CA, December 1, 2009, Page 8.

Native Plant Protection Act (NPPA)

The NPPA (California Fish and Game Code Section 1900-1913) prohibits the taking of any rare, threatened, or endangered plants as defined by the CDFG. Project impacts to these species would be considered “significant” if the species are known to occur within the area of disturbance associated with the construction of a project, or “potentially significant” if the species has a high potential to occur within the area of disturbance.

Local

City of Sacramento Code Section 12.64, Heritage Trees, protects heritage trees, which are trees of a certain size or species. Removal of, or construction around, trees that are protected by this Code section are subject to permission by the City arborists. The City’s Department of Transportation works with the City’s Department of Utilities during the planning and construction process to minimize impacts to the City’s street trees.

City of Sacramento 2030 General Plan

The following General Plan policies would apply to developments within the proposed RDSP area.

ER 2.1.1 Resource Preservation. The City shall encourage new development to preserve on-site natural elements that contribute to the community’s native plant and wildlife species value and to its aesthetic character.

ER 2.1.4 Retain Habitat Areas. The City shall retain plant and wildlife habitat areas where there are known sensitive resources (e.g., sensitive habitats, special-status, threatened, endangered, candidate species, and species of concern). Particular attention shall be focused on retaining habitat areas that are contiguous with other existing natural areas and/or wildlife movement corridors.

ER 2.1.6 Wetland Protection. The City shall preserve and protect wetland resources including creeks, rivers, ponds, marshes, vernal pools, and other seasonal wetlands, to the extent feasible. If not feasible, the mitigation of all adverse impacts on wetland resources shall be required in compliance with State and federal regulations protecting wetland resources, and if applicable, threatened or endangered species. Additionally, the City shall require either on- or off-site permanent preservation of an equivalent amount of wetland habitat to ensure no-net-loss of value and/or function.

ER 2.1.10 Habitat Assessments. The City shall consider the potential impact on sensitive plants for each project requiring discretionary approval and shall require pre-construction surveys and/or habitat assessments for sensitive plant and wildlife species. If the preconstruction survey and/or habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level or industry-recognized (if no protocol has been established) surveys shall be conducted; or (2) presence of the species shall be assumed to occur in suitable habitat on the project site. Survey reports shall be prepared and submitted to the City and the California Department of Fish and Game (CDFG) or the United States Fish and Wildlife Service (USFWS) (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.

ER 2.1.11 Agency Coordination. The City shall coordinate with State and Federal resource agencies (e.g., California Department of Fish and Game (CDFG)), U.S. Army Corps of Engineers,

and United States Fish and Wildlife Service (USFWS)) to protect areas containing rare or endangered species of plants and animals.

ER 3.1.3 Trees of Significance. The City shall require the retention of trees of significance (such as heritage trees) by promoting stewardship of such trees and ensuring that the design of development projects provides for the retention of these trees wherever possible. Where tree removal cannot be avoided, the City shall require tree replacement or suitable mitigation.

Impacts and Mitigation Measures

Thresholds of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of new development within the RDSP would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- create a potential health hazard, or involve the use, production, or disposal of materials that pose a hazard to plant or animal populations in the affected area;
- result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of threatened or endangered species of plants or animals;
- affect other species of special concern to agencies or natural resource organizations (such as regulatory waters or wetlands); or
- violate City Code Section 12.64.040 (related to Heritage Trees).

Methodology

The information is based, in part, on the *Biological Resources Assessment for the River District Specific Plan*, Sacramento, CA, prepared by AECOM, dated December 1, 2009.

A review of aerial photography was used to help identify potential biological resources prior to the site visit. Two biologists and a wetland ecologist/botanist conducted a reconnaissance-level site visit in November 2009 to evaluate the habitat within the RDSP area for special-status species, composition of the plant communities, and potential biological constraints.

The California Department of Fish and Game's California's Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNSP) Inventory of Rare and Endangered Plants were accessed for the documented findings in, and around, the RDSP area.

A potential species list for the study area was obtained from the US Fish and Wildlife Service (USFWS).

The significance of impacts is determined using the above Thresholds of Significance.

Impact 5.2-1	Implementation of the RDSP could create a potential health hazard, or involve the use, production, or disposal of materials that pose a potential hazard to plant or animal populations in the affected area.	
	Central City Community Plan Area is not an area of the City that would generate more or additional impacts for hazards to plant and animal populations than area covered by the General Plan (Page 6.3-54, MEIR).	
Mitigation/ polices included in General Plan EIR applicable to project	PHS 3.1.2 -Hazardous Material Contamination Management Plan	
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.2-1	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

An increase in air, water, and soil pollutants, resulting from population increases, could pose hazards to plant or wildlife populations within the RDSP area.

Development of the proposed RDSP would result in increases in population. Increases in population could also result in increases in the use of potentially hazardous materials, such as fertilizers, herbicides, and pesticides used in lawn care. During irrigation or storm events these types of pollutants could be washed into street drains and eventually end up in detention basins and drainage swales. Increased vehicle trips would result in increased air emissions, such as ozone precursors and particulate matter. Increases in air, water, and soil pollutants as a result of the increase in population could expose plant and wildlife populations to hazardous materials. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and, in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment.

As noted on Page 6.3-32 in the MEIR, federal, State, and City regulations and policies address the protection of natural resources from hazards and hazardous materials in soil, water (both surface and ground), and air.

More specifically for the RDSP, and as noted in Chapter 5.4, Hazards and Hazardous Materials, there is existing contamination in the RDSP area due to previous uses on, and adjacent to, the Proposed Project area. Construction of the backbone infrastructure, as well as development in accordance with the RDSP could result in disturbance of contaminated soils and/or contact with contaminated groundwater. The burrowing owl, Swainson’s hawk, white-tailed kite, and purple martin are non-plant species identified in the biological resources assessment as having the potential to occur on, or adjacent to, the RDSP area. Burrowing owls would be moved from the areas of disturbance prior to ground disturbance, and so would not be exposed to contamination. However, the remaining species could be exposed on a temporary basis during the time the contaminants are exposed.

As previously stated, exposed soil and groundwater contaminants are highly regulated by both the federal and State governments, which would require and enforce the proper handling of the exposed contamination. In addition, General Plan Policy PHS3.1.2 requires preparation of a Hazardous Materials Contamination Management Plan prior to development of contaminated parcels. Implementation of the Plan would manage such sites to prevent adverse environmental risks.

This policy, as well as federal, State, and local regulations would require that the on-going use of properties within the RDSP area do not result in releases that have environmental risks.

For these reasons, and as determined in the MEIR for the General Plan, the potential for the development of the RDSP area in accordance with the Specific Plan to create potential hazard to plant or animal populations would be *less than significant*.

Impact 5.2-2	Implementation of the RDSP could adversely affect special-status birds due to the substantial degradation of the quality of the environment or reduction of the population or habitat below self-sustaining levels due to loss or disturbance of nesting and/or foraging habitat.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts on special-status birds than area covered by the General Plan (Page 6.3-54, MEIR).		
Mitigation/ polices included in General Plan EIR applicable to project	ER 2.1.10 Habitat Assessments ER 2.1.11 Agency Coordination	
Project significance after mitigation/ polices included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.2-2(a)(b)(c)	<i>Burrowing Owls Swainson's Hawk Purple Martins See full text below</i>
Residual Significance	<i>Less than Significant</i>	

As noted, there is a potential for special-status birds (burrowing owl, Swainson's hawk, and purple martin) within the RDSP area to be adversely impacted by construction of the RDSP.

As noted in the biological resource assessment, the riparian areas of, and structures over, the two rivers in the RDSP provide habitat for special status birds. Because the proposed project would not result in construction within either the riparian habitat or the bridge structures, the Proposed Project would not result in a substantial degradation of the quality of the environment for special status birds. The small scattered ruderal areas in the RDSP area provide limited foraging habitat. For these reasons, this analysis focuses on the adverse effects due to the potential reduction in populations due to the loss or disturbance of nesting habitat.

Burrowing Owls

Although no burrowing owls, or owl-occupied burrows were observed within the RDSP area, there are undeveloped parcels with ruderal habitat that could support burrowing owls. For this reason, this EIR assumes their presence.

Implementation of the following mitigation measure would reduce the potential impacts to burrowing owls to a less-than-significant level by determining if the birds are present within the proposed area of disturbance, relocating the birds outside of the area, and avoiding disturbance to burrows during the nesting season.

Mitigation Measure (Burrowing Owls)

The following mitigation shall be implemented for ground disturbing activities on undeveloped parcels:

5.2-2(a)

Preconstruction surveys for burrowing owls shall be conducted in accordance with the Burrowing Owl Survey Protocol and Mitigation Guidelines (The California Burrowing Owl Consortium 1993), which calls for surveying out to 500 feet from project limits where suitable habitat is present. If owls are identified in the biological study area, mitigation measures will be implemented as outlined in the CDFG's 1995 Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 1995). These measures will include those listed here.

If occupied owl burrows are found within the biological study area, a determination will be made by a qualified biologist in consultation with the CDFG regarding whether work will affect the occupied burrows or disrupt reproductive behavior.

If it is determined that construction will affect occupied burrows during August through February, the subject owls will be passively relocated from the occupied burrow(s) using one-way doors. One-way doors will be in place for a minimum of 48 hours before burrows are excavated.

If it is determined that construction will physically affect occupied burrows or disrupt reproductive behavior during the nesting season (March through July), avoidance is the only mitigation available. Construction will be delayed within 300 feet of occupied burrows until it is determined that the subject owls are not nesting or until a qualified biologist determines that juvenile owls are self sufficient or are no longer using the natal burrow as their primary source of shelter.

Swainson's Hawk

Swainson's hawks are State listed as threatened. The bird typically appears in California during the breeding season (March through September). Foraging habitat for the hawk, which includes ruderal fields, is very limited in the RDSP area (see Figure 5.2-2 for locations of ruderal fields). These fields are located in areas of commercial development and dominated by non-native species. According to the Biological Resource Assessment, the development of these ruderal areas would not affect the species.⁴

However, the hawk may still use the riparian vegetation, including the large trees, along the southern shore of the American River and the eastern shore of the Sacramento River for nesting habitat. The closest CNDDDB-documented nest is less than a mile north of the RDSP area. Because the Proposed Project does not include disturbance of either riparian corridor within the RDSP area, the project would not result in direct impact to Swainson's hawks through the removal of potential nest trees, although an indirect impact could occur if development of parcels occurs near a tree with an active nest.

Implementation of the following mitigation measure would reduce the potential impacts to Swainson's hawk to a less-than-significant level by maximizing the potential for locating nesting Swainson's hawks, and thereby reducing the potential for nest failures as a result on project activities or disturbances. The combination of appropriate surveys, risk analyses, and monitoring would be very effective in reducing the potential for project-induced nest failures.

⁴ AECOM, Biological Resources Assessment for the River District Specific Plan, Sacramento, CA, December 1, 2009, Pages 11 and 12.

Mitigation Measure (Swainson's Hawks)

The following mitigation shall be implemented for construction and demolition activities within the RDSP area:

5.2-2(b)

Construction and demolition activities shall be conducted during the non-nesting season (August 1 through March 19) whenever feasible.

If construction or demolition activities occur during the nesting season (between March 20 and July 30), a qualified biologist shall conduct a survey for nesting Swainson's hawk within a 0.5 mile of the demolition/construction activities using the California Department of Fish and Game's (CDFG) Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley or as required by CDFG.

Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities, and shall be conducted in accordance with the California Department of Fish and Game (CDFG) protocol as applicable.

If no active Swainson's hawk nests are identified a copy of the preconstruction survey and letter report stating the survey results shall be sent to the City of Sacramento and no further mitigation is required.

If active nests are found, measures consistent with the CDFG Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California shall be implemented. These measures include, but shall not be limited to:

No intensive disturbances (such as heavy equipment operation associated with construction, use of cranes, or rock-crushing) or other project-related activities that may cause nest abandonment or forced fledging, can be initiated within 200 yards (buffer zone) of an active nest between March 20 and July 30. The size of the buffer area may be adjusted by a qualified biologist

If demolition/construction activities are unavoidable within the buffer zone, the project applicant shall retain a qualified biologist to monitor the nest to determine if abandonment occurs. If the nest is abandoned and the nestlings are still alive, the project applicant shall retain the services of a qualified biologist to reintroduce the nesting(s) (recovery and backing). Prior to implementation, any backing plan shall be reviewed and approved by the Environmental Services Division and Wildlife Management Division of the CDFG.

Completion of the nesting cycle will be determined by a qualified biologist.

Purple Martins

Purple martins, a California species of special concern, could nest in the I-5 and 16th Street bridges crossing the American River. The vertical weep holes in these bridges provide marginally suitable nesting habitat for this species. There is a bridge over Richards Boulevard within the RDSP area; however, no weep holes were found in the bridge structure⁵ and there are currently plans for a project that will reconstruct the bridge. No improvements to the bridges adjacent to the RDSP area are proposed.

The proposed project would not result in any direct impacts on purple martin or any previously documented purple martin nest sites; however, an indirect affect could occur if the birds are disturbed by project construction, there is a loss of foraging habitat, loss of areas for nest building materials, or the project could

⁵ ICF Jones & Stokes, Initial Study and Mitigated Negative Declaration, Access Improvements from Railyards to Richards Boulevard and Interstate 5 Project, August 2009.

affect their access to nests.

As previously noted, the majority of the proposed RDSP area is developed, with a few, small scattered areas of ruderal habitat. However, the project area is bordered on the north and west by the riparian areas associated with the two rivers, which provide foraging habitat and materials for nest building. The project would not develop on the water-side of the levees and so would not affect the access to nests under the bridges. However, construction or demolition activities associated with development of the RDSP could result in disturbance to nesting birds. For this reason, mitigation requiring a pre-construction survey and a construction buffer would be implemented to avoid such disturbance. Because the Proposed Project would not directly disturb nesting habitat, would not remove the foraging habitat and nesting materials in the riparian habitat, would not affect access to nests, and (with mitigation) would not disturb nesting behavior, the impacts would be less than significant.

Mitigation Measure (Purple Martins)

5.2-2(c)

Prior to any grading, demolition, or construction activities from March 15 to May 15 within 100 feet of the bridges over the American River adjacent to the project site, a preconstruction survey shall be conducted by a qualified biologist within 15 days of the start of project-related activities. If active nests are present, no construction shall be conducted within 100 feet of the edge of purple martin colony (as demarcated by the active nest hole closest to the construction activity) at the beginning of the purple martin breeding season from March 15 to May 15. The buffer areas shall be avoided to prevent disturbance to the nest(s) until it is no longer active. The size of the buffer areas may be adjusted in a qualified biologist and CDFG determine is would not be likely to have adverse effects on the purple martins. No project activity shall commence within the buffer areas until a qualified biologist confirms that the nest(s) is no longer active.

Conclusion

Implementation of the proposed RDSP would allow for infill development within the project boundary and could result in the demolition of existing structures to redevelop parcels in accordance with the SP. As noted, there is a potential for special-status birds (burrowing owl, Swainson's hawk, and purple martin) within the RDSP area that could be adversely impacted by construction within the RDSP area.

Page 6.3-54 of the MEIR states that vacant lots within the River District could support sensitive species or habits for special-status birds; however, as noted in the biological resource assessment for the proposed RDSP, the area that could be developed as a result of the Specific Plan provides limited foraging and nesting habitat.

The MEIR for the City's General Plan acknowledged that implementation of the 2030 General Plan policies would partially mitigate for potential direct and indirect impacts on special-status bird species within the City. In addition, implementation of the regulatory processes would require measures to mitigate for impacts on special-status birds. However, because the processes would still allow the loss of suitable habitat within the City, the impact was determined to be Significant and Unavoidable.

General Plan Policy ER 2.1.10 requires pre-construction surveys and/or habitat assessments in accordance with protocol-level surveys. The results of the surveys shall be submitted to the City and the CDFG for further consultation. General Plan Policy ER 2.1.11 requires coordination with State and federal resource agencies to protect areas containing endangered species.

Projects within the proposed RDSP area would comply with General Plan policies and would be required to mitigate for the potential adverse affect on special-status birds due to the potential for the reduction of the

population or habitat below self-sustaining levels due to loss or disturbance of nesting habitat. Because the Proposed Project would not result in the substantial degradation of the quality of the environment or reduction of the population or habitat below self-sustaining levels due to loss or disturbance of nesting and/or foraging habitat, the impact would be *less than significant*.

<p>Impact 5.2-3</p>	<p>Implementation of the RDSP could adversely affect special-status mammals due to the substantial degradation of the quality of the environment or reduction of population or habitat below self-sustaining levels.</p>	
<p>Central City Community Plan Area is not an area of the City that would generate more or additional impacts on special-status mammals than area covered by the General Plan (Page 6.3-54, MEIR).</p>		
<p>Mitigation/ polices included in General Plan EIR applicable to project</p>	<p>ER 2.1.10 Habitat Assessments ER 2.1.11 Agency Coordination</p>	
<p>Project significance after mitigation/ policies included in General Plan EIR</p>	<p><i>Potentially Significant</i></p>	
<p>Additional Mitigation for Project</p>	<p>MM 5.2-3</p>	<p><i>Prior to demolition activities, the project applicant shall retain a qualified biologist to conduct a focused survey for bats and potential roosting sites within the area of disturbance. If no roosting sites or bats are found, a letter report confirming absence shall be sent to the City of Sacramento and no further mitigation is required.</i></p> <p><i>If bats are found roosting outside of the nursery season (May 1 through October 1), then they shall be evicted as described under (c) below. If bats are found roosting during the nursery season, then they shall be monitored to determine if the roost site is a maternal roost. This can occur either by visual inspection of the bat pups, if possible, or monitoring the roost for sounds of bat pups after the adults leave for the night. If the roost is determined to not be a maternal roost, then the bats shall be evicted as described under (c). Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. A 250-foot (or as determined in consultation with CDFG) buffer zone shall be established around the roosting site within which no construction shall occur.</i></p> <p><i>Eviction of bats shall be conducted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with CDFG, that allow the bats to exist the roosting site but prevent re-entry to the site. This would include, but not be limited to, the installation of one-way exclusion devices. The devices would remain in place</i></p>

		<i>for seven days and then the exclusion points and any other potential entrances shall be sealed. This work shall be completed by a BCI-recommended exclusion professional.</i>
Residual Significance	<i>Less than Significant</i>	

According to the *Biological Resources Assessment*, the CNDDDB and USFWS databases only two special-status mammals, the American badger and bats, were documented in the project vicinity; however, with the high level of existing development and limited open habitat, it is unlikely that the badger would occur in or adjacent to the RDSP area.⁶

The pallid bat (*Antrozous pallida*) and the Pacific Western big eared bat (*Corynorhinus townsendii townsendii*) are both CDFG species of special concern.

Indications of roosting bats were found in abandoned buildings within the Township 9 project site. A survey prior to the demolition of the buildings determined that the roosts were not maternal roosts and the buildings were demolished.

Although no bat species were observed during the reconnaissance survey, their potential presence is assumed in this DEIR. There are bridges over the American River adjacent to the RDSP area. Crevices in the bridges could provide marginal roosting habitat for bats. Other structures within the RDSP could also be used by bats as maternity roosts, as evidenced by the findings in the Township 9 project area.

The project does not propose any work on either the bridge structures or within the rights of way for the bridges. However, implementation of the proposed RDSP would involve the removal of existing structures, both for roadway extensions and new roads and to redevelop parcels in accordance with the RDSP vision. For this reason, the proposed project could result in significant impacts to special-status mammals (bats).

General Plan Policy ER 2.1.10 requires pre-construction surveys and/or habitat assessments in accordance with protocol-level surveys. The results of the surveys shall be submitted to the City and the CDFG for further consultation. General Plan Policy ER 2.1.11 requires coordination with State and federal resource agencies to protect areas containing endangered species.

Projects within the proposed RDSP area would comply with these General Plan policies and would be required to mitigate for the potential adverse affect on special-status mammals due to the potential for a substantial degradation of the quality of the environment or reduction of population or habitat below self-sustaining levels. Because the Proposed Project would not result in the substantial degradation of the quality of the environment or reduction of the population or habitat below self-sustaining levels due to loss or disturbance of nesting and/or foraging habitat, the impact would be ***less than significant***.

Implementation of Mitigation Measure 5.2-3 would reduce this impact to a less-than-significant level by identifying potential bat roosting sites within the areas of construction disturbance, and either protecting maternal roosts or providing bat exclusion techniques that would allow for the bats to relocate before construction begins.

⁶ AECOM, Biological Resources Assessment for the River District Specific Plan, Sacramento, CA, December 1, 2009, Pages 2 and 9.

Mitigation Measure

5.2-3

Prior to demolition activities, the project applicant shall retain a qualified biologist to conduct a focused survey for bats and potential roosting sites within the area of disturbance. If no roosting sites or bats are found, a letter report confirming absence shall be sent to the City of Sacramento and no further mitigation is required.

If bats are found roosting outside of the nursery season (May 1 through October 1), then they shall be evicted as described under (c) below. If bats are found roosting during the nursery season, then they shall be monitored to determine if the roost site is a maternal roost. This can occur either by visual inspection of the bat pups, if possible, or monitoring the roost for sounds of bat pups after the adults leave for the night. If the roost is determined to not be a maternal roost, then the bats shall be evicted as described under (c). Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. A 250-foot (or as determined in consultation with CDFG) buffer zone shall be established around the roosting site within which no construction shall occur.

Eviction of bats shall be conducted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with CDFG, that allow the bats to exist the roosting site but prevent re-entry to the site. This would include, but not be limited to, the installation of one-way exclusion devices. The devices would remain in place for seven days and then the exclusion points and any other potential entrances shall be sealed. This work shall be completed by a BCI-recommended exclusion professional.

Impact 5.2-4	Implementation of the RDSP could result in the loss of CDFG-defined sensitive natural communities, such as an elderberry savanna, resulting in a substantial adverse effect.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts on CDFG-defined sensitive natural communities than area covered by the General Plan (Page 6.3-54, MEIR).		
Mitigation/ polices included in General Plan EIR applicable to project	ER 2.1.4 Retain Habitat Areas ER 2.1.10 Habitat Assessments ER 2.1.11 Agency Coordination	
Project significance after mitigation/ policies included in General Plan EIR	<i>Potentially significant</i>	
Additional Mitigation for Project	MM 5.2-4	<i>Survey Avoidance Compensation Delisting See full text below</i>
Residual Significance	<i>Less than Significant</i>	

The valley elderberry longhorn beetle (VELB) species is almost always found on, or close to, its host plant, the elderberry. Several elderberry shrubs are present within the RDSP study area, in the elderberry savannah in the eastern portion of the plan area, and in scattered disturbed lots and ruderal fields (see Figure 5.2-1 for the locations of the area of elderberry savanna and the ruderal fields). “Ruderal” as used in this DEIR is defined as “undeveloped”.

The VELB is federally listed as threatened; and therefore, the take of the beetle and/or the disturbance of its habitat are prohibited by law. As used by the Act, “take” may include significant habitat modification or degradation where it actually kills or injures the species by significantly impairing breeding, feeding, or sheltering. The USFWS considers all elderberry shrubs with stems equal to, or greater than, one-inch in diameter potential habitat for the beetle. The USFWS also assumes that impacts to VELB would occur wherever there is disturbance within 100-feet of suitable habitat. Therefore, either of these two conditions would be considered a “take” under the federal ESA.

In September 2006, the USFWS recommended a delisting of the VELB. If the VELB is delisted prior to the initiation of construction activities, then the applicant would be required to proceed consistent with any requirements that accompany the VELB delisting notice.

The MEIR for the City’s General Plan stated that the General Plan includes policies designed to protect biological resources (such as special-status invertebrates) and habitats (such as elderberry shrubs) and the City established standards to require analyses of a project’s potential impacts on such species and habitats. In addition, implementation of the regulatory processes would require measures to mitigate for impacts on special-status invertebrates. However, because the processes would still allow the loss of suitable habitat within the City, the impact was determined to be Significant and Unavoidable.

Implementation of the RDSP could result in the loss of habitat for a federally-protected species, the VELB. On a project level, General Plan Policy ER 2.1.4 would require that wildlife habitat is maintained in areas where there are known sensitive resources (such as VELB) and that particular attention be focused on retaining habitat areas that are contiguous with other existing natural areas, such as plants within the elderberry savannah in the RDSP area. General Plan Policy ER 2.1.10 would require pre-construction surveys for elderberry shrubs and VELB in accordance with protocol-level surveys and consultation with the USFWS. General Plan Policy ER 2.1.11 would require coordination with federal and State resource agencies to protect areas containing this species.

Projects within the proposed RDSP area would comply with General Plan policies and would be required to mitigate for the potential adverse effect on VELB due to the loss of CDFG-defined sensitive natural communities, such as an elderberry savanna, resulting in a substantial adverse effect.

Implementation of the following mitigation measure would require a site-specific protocol survey be conducted to determine the presence of VELB in any elderberry bushes in the area of disturbance. If habitat is identified, then implementation of the mitigation measure would ensure that the project is designed to avoid disturbance. If disturbance within the buffer is unavoidable, the transplantation and replacement of VELB habitat as specified by the USFWS’s VELB mitigation guidelines would ensure that the habitat is protected from loss. For these reasons, potential impacts to the elderberry savanna would be ***less than significant***.

Mitigation Measure

5.2-4

Prior to any ground-disturbing, demolition, or construction activities, the project applicant shall retain a qualified biologist to conduct a survey to identify and document all potential valley elderberry longhorn beetle habitat (VELB). The survey and evaluation methods shall be performed consistent with the US Fish and Wildlife Service’s (USFWS) VELB survey methods. The survey shall include a stem count of stems greater than, or equal to, one-inch in diameter and an assessment of historic or current VELB use. If no such habitat is found, mitigation is not necessary.

Avoidance

The proposed project shall be designed to avoid ground disturbance within 100 feet of the dripline of elderberry shrubs identified in the survey, as noted in (a) above, as having stems greater than or equal to one inch in diameter. The 100-foot buffer could be adjusted in consultation with the USFWS. If avoidance is achieved, a letter report confirming avoidance shall be sent to the City of Sacramento and no further mitigation is required.

Before any ground-disturbing activity, a qualified biologist shall flag the elderberry shrubs that will be retained adjacent to the biological study area. Thereafter, the City shall ensure that a minimum 4-foot-tall temporary, plastic mesh-type construction fence (Tensor Polygrid or equivalent) is installed at least 100-feet from the driplines of the flagged elderberry shrubs. This fencing is intended to prevent encroachment by construction vehicles and personnel. The fencing shall be strung tightly on posts set at a maximum interval of 10 feet. The fencing shall be installed in a way that prevents equipment from enlarging the work area beyond the delineated work area. The fencing shall be checked and maintained weekly until all construction is completed. Signs shall be placed at intervals of 50 feet and must be readable at a distance of 20 feet. This buffer zone will be marked by signs stating:

“This is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.”

No construction activity, including grading, clearing, storage of equipment or machinery shall be allowed until this condition is satisfied. The fencing and a note reflecting this condition will be shown on the construction plans.

In addition to (b)(1-3) above, the following shall also be implemented:

The City will ensure that dust control measures are implemented for all ground-disturbing activities in the project area. These measures may include application of water to graded and disturbed areas that are unvegetated; however the City or its contractor may use other measures more appropriate for site-specific conditions, as long as dust is minimized to the maximum extent practicable. To avoid attracting Argentine ants, at no time will water be sprayed within the driplines of elderberry shrubs.

Pursuant to the USFWS VELB Guidelines, the City will implement the following measures to mitigate for the direct and indirect impacts on VELB before groundbreaking occurs for the proposed project.

If disturbance within 100-feet of the dripline, or approved equal by the USFWS, of the elderberry shrub with stems greater than or equal to one-inch in diameter is unavoidable, then the project applicant shall retain the services of a qualified biologist to develop VELB mitigation plan in accordance with the current USFWS mitigation guidelines for unavoidable take of VELB habitat pursuant to either Section 7 or Section 10(a) of the Federal Endangered Species Act. The mitigation plans shall be reviewed and approved by the USFWS prior to any disturbance within the 100-foot dripline.

Compensatory Mitigation

Transplant Directly Affected Elderberry Shrubs

Elderberry shrubs will be transplanted when the plants are dormant, approximately November through the first two weeks in February, after they have lost their leaves. Transplanting during the non-growing season will reduce shock to the plant and increase transplantation success. The project applicant shall follow the specific transplanting guidance provided in the USFWS VELB Guidelines.

Shrubs shall be transplanted to the French Camp Conservation Bank, or another UFWWS-approved site. Elderberry seedlings and associated native plants will also be established at the site according to the ratios outlined in the Guidelines. See USFWS Biological Opinion, page 6, Table 1 issued on October 8, 2009 for the ratios.

Compensate for Direct Impacts on Elderberry Shrubs

According to the USFWS VELB Guidelines, adversely affected shrubs that are “transplanted or destroyed” should be mitigated for according to the measures outlined in Table 1 of the USFWS VELB Guidelines. The City will mitigate for impacts on the shrubs by purchasing mitigation credits at a USFWS-approved mitigation bank. A summary of the required mitigation is provided in Table 3.7-2. As shown in the table, the proposed project would require 22 elderberry seedlings and 28 associated native plants (six VELB credits) to be planted at a USFWS-approved mitigation bank. Currently, VELB mitigation credits are available at French Camp Conservation Bank. The shrubs identified for transplantation will be transplanted to this mitigation bank.

Compensation for Impacts on VELB Habitat					
Location	Stem Diameter Class at Ground Level in Centimeters (inches)	Exit Holes?	Stem Count	Elderberry Seedling Ratio	Associated Native Plant Ratio
Non-riparian	2.5–7.6 (1–3)	No	5	1:1	1:1
		Yes	0	2:1	2:1
Non-riparian	7.6–12.7 (3–5)	No	1	2:1	1:1
		Yes	0	4:1	2:1
Non-riparian	>12.7 (>5)	No	3	3:1	1:1
		Yes	1	6:1	2:1

If the VELB is delisted by the USFWS prior to the initiation of any ground disturbing, demolition, or construction activities, the project applicant shall comply with any requirements that accompany the VELB delisting notice.

Impact 5.2-5	Implementation of the RDSP could result in a violation of City Code Section 12.64.040 (related to Heritage trees)	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts on Heritage trees than area covered by the General Plan (Page 6.3-54, MEIR).		
Mitigation/ polices included in General Plan EIR applicable to project	ER 2.1.1 Resource Preservation ER 3.1.3 Trees of Significance	
Project significance after mitigation/ policies included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.2-5	Prior to the removal of any Heritage tree, the project applicant shall contact the City’s Arborist and develop and enact a tree mitigation plan in compliance with the City’s requirements.
Residual Significance	<i>Less than Significant</i>	

As it relates to the proposed RDSP, the City Code defines Heritage trees as:

- Any tree of any species with a trunk circumference of 110” or more, which is healthy, vigorous, and conforms to standards for shape and location for its species.

- Any oak, California buckeye or California sycamore 36” or greater which is healthy, vigorous, and conforms to standards for shape and location for its species.

The City adopted this section of the Code to protect trees, which is considered a significant resource in the City. It is the City’s policy to encourage new development to preserve on-site such resources that contribute to the community’s native plant and wildlife species value and to its aesthetic character (Policy ER 2.1.1). In addition, Policy ER 3.1.1 requires the retention of trees of significance (such as heritage trees) by promoting stewardship of such trees and ensuring that the design of development projects provides for the retention of these trees wherever possible. Where tree removal cannot be avoided, the City requires tree replacement or suitable mitigation.

Removal of, or construction around, trees that are protected by City Code requires permission and inspection by a City arborist. The City works with the developer to minimize impacts to trees during the development of a parcel.

There could be Heritage trees on parcels that would be developed or redeveloped as part of the RDSP. Implementation of Mitigation Measure 5.2-5 would ensure that development within the RDSP would mitigate for the loss of Heritage trees, as required by the City. For this reason, the impact would be ***less than significant***.

Mitigation Measure

5.2-5

Prior to the removal of any Heritage tree, the project applicant shall contact the City’s Arborist and develop and enact a tree mitigation plan in compliance with the City’s requirements.

Cumulative Analysis

The cumulative context for the biological resources analyses is the Sacramento Valley.

Impact 5.2-6	Implementation of the RDSP, in addition to other projects within the City and greater Sacramento Valley could result in potential health hazards, or involve the use, production, or disposal of materials that pose a hazard to plant or animal populations.	
Mitigation for Project	MM 5.5-4	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

As indicated in Impact 6.3-1 of the MEIR for the General Plan (see Page 6.3-31), implementation of the City’s General Plan at buildout would have a less-than-significant effect of plant or animal populations due to the use, production, or disposal of materials that pose potential hazards to such resources.

Implementation of the proposed RDSP would also result in a less-than-significant impact (see Impact 5.2-1 above); therefore, the project’s contribution would not be considerable.

All existing and planned developments within the greater Sacramento Valley, which includes the City and the Proposed Project area, would be required to abide by the same federal, State, and local regulations regarding the use, production, and disposal of hazardous materials. Compliance with existing regulations

Impact 5.2-7	Implementation of the RDSP, in addition to other projects in the Sacramento Valley could result in regional losses of special-status wildlife species or their habitat.	
Mitigation for Project	MM 5.5-4	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

As the City and remainder of the Valley develop in accordance with the various general plans and other land use plans, sensitive wildlife species and their habitat in the region, including those species listed under CESA and FESA, and those identified by State resource agencies as Sensitive Species, could be lost through development. With continued conversion of habitats to human use or the loss of manmade habitats through redevelopment, the availability and accessibility of the remaining habitat would dwindle. However, as noted on Page 6.3-52 of the MEIR, because all development within the region, including the proposed RDSP, would be required to comply with the regulations enacted by the federal and State governments to protect special-status species, the combined cumulative impact associated with the project’s incremental effect and the effects of other projects is not significant. For this reason, the cumulative impact is considered ***less than significant***.

Mitigation Measure

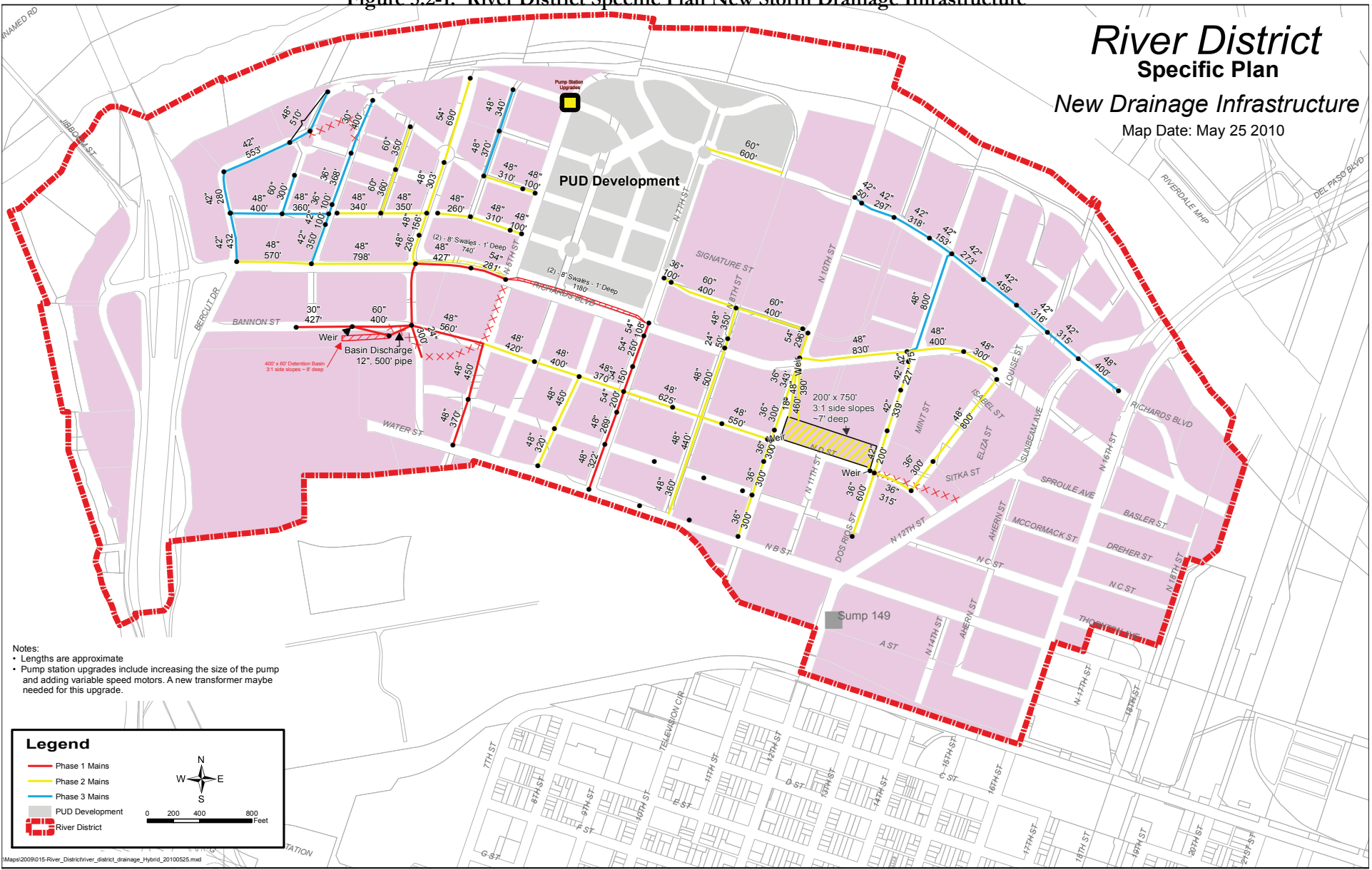
None required.

Figure 5.2-1: River District Specific Plan New Storm Drainage Infrastructure

River District Specific Plan

New Drainage Infrastructure

Map Date: May 25 2010



Notes:

- Lengths are approximate
- Pump station upgrades include increasing the size of the pump and adding variable speed motors. A new transformer maybe needed for this upgrade.

Legend

- Phase 1 Mains
- Phase 2 Mains
- Phase 3 Mains
- PUD Development
- River District

Figure 5.2-2: River District Specific Plan Area Habitat Type Map



5.3: CULTURAL RESOURCES

Chapter 5.3

Cultural and Historic Resources

In accordance with General Plan Policy HCR 2.1.6 Planning that the City shall take historical and cultural resources into consideration in the development of planning documents, this chapter of the DEIR analyzes the potential of the proposed RDSP to impact the existing cultural and historic resources. In accordance with that policy, identification and consideration of means to preserve the historic and cultural resources of the River District was part of the proposed River District Specific Plan's development process. The information in this chapter outlines the cultural and historic resources identified within the River District Specific Plan Area, evaluates potential impacts from the Specific Plan to those resources, and proposes measures to mitigate potential impacts to less than significant levels.

Analysis in this Chapter is largely based upon information, findings and policies within the Sacramento 2030 General Plan and its certified Master Environmental Impact Report, the City of Sacramento, *Richards Blvd Redevelopment Plan Amendment*, "Cultural and Historic Resources, Richards Boulevard Area Plan EIR (1992)", *Township 9 Draft Environmental Impact Report*, and the 1999/2000 historic surveys with the 2009 update of a survey of historic resources within the project area; these surveys.

The historic resources on the Township 9 project site were analyzed as part of the environmental review of the Township 9 project and are not further addressed in this chapter.

No comments pertaining to the protection of cultural or historic resources were received in response to the NOP.

Environmental Setting

Located at the confluence of the Sacramento and American Rivers, the RDSP area is a low-lying tract of sedimentary earth where several seasonal lakes historically formed. Until the late 19th century, the project area was subject to intermittent flooding. After 1853, the federal government typically declared river land in California "Swamp and Overflow" lands, and granted the State permission and additional funding to administer "reclamation" activities as they saw fit.

Sacramento's physical environment has been greatly altered by human modification over time. Specifically, the urbanization of the City of Sacramento greatly altered the pre-1850 environment. Before human modification, the area was relatively flat, treeless grassland subject to seasonal flooding.

As shown on Figure 6.4-1, Archeological Sensitivity, Page 6.4-5 of the 2030 General Plan MEIR, the portions of the RDSP area between the Sacramento River and I-5, along the American River, and the area of the water treatment plant on Bercut Drive are considered High Archeological Sensitivity Areas. These are areas of recorded prehistoric period archeological resources. To obscure the precise locations to protect the sites from theft and vandalism, the zones were enlarged and areas in between sites were included in the zones. The types of recorded prehistoric sites can include large village mounds, small villages, and campsites.

Prehistoric & Ethnographic Setting

The Sacramento Valley was likely occupied and used by humans during the late Pleistocene and early Holocene (14,000 to 8,000 B.P.¹); however, the archaeological record of such use is sparse. This lack of archaeological evidence is understandable given that such evidence is likely buried under accumulated gravels and silt deposits, and few sites have been excavated beyond a few meters in depth.

Little is known about prehistoric occupations in the Central Valley during this early period (12,000-8,000 B.P.); however, given its rich flora and fauna along the rivers edges, it is highly likely that Paleo-Indian populations occupied the Project Area at least for hunting, fishing and gathering, if not for more permanent settlements. It is thought that early populations traveled in relatively small groups, were highly mobile, and settled near lakes and rivers where large game was also likely to congregate.

The latter part of this period (10,000-8,000 B.P.) saw a general warming trend, resulting in the drying of Pleistocene lakes and an overall shift in flora and fauna distributions. Sites dating to this time identified in northern California are recognized by the presence of large stemmed points, collectively referred to as Great Basin Stemmed series. Bifaces, scrapers, cores, and eccentrics (better known as crescents) are also characteristic of this period. Recently artifacts from 8,000 B.P. were discovered in Downtown Sacramento, buried 10-20 feet beneath the new City Hall site (2007).

Like the previous period, the Lower Archaic (8,000-5,000 B.P.) is poorly understood in the Central Valley. Few sites in the region have been found, owing to the fact that evidence from this time period is largely buried. Where floral remains from this period have been discovered, the indications are for short-term seasonal use, associated with a highly mobile population.

The Middle Archaic Period (5,000-2,200 B.P.) identified as the Early Horizon under the Central California Taxonomic System (CCTS) is distinguished as one that emphasized hunting, as evidenced by the relative proportions of tools representative of hunting, fishing, and gathering activities. According to the Richards Boulevard Redevelopment Plan, the nearby village site (CA-SAC-34,) located in what is now the Sutter's Fort area of higher ground, was occupied during this period and contained several burials.²

Sites associated with the Upper Archaic Period (2,200-1,000 B.P.) contain substantial midden deposits with shell, mammal and fish bone, charcoal, milling tools, and other artifacts.³ The number of mortars and pestles increases during this time, indicating a greater reliance on acorn and nuts. The increase in obsidian, shell, and bead assemblages observed during this period is thought to indicate a greater complexity of exchange networks and social stratification. This period is well represented at several large mound sites situated along the Sacramento and American Rivers.

The Emergent Period dates between 1,000 B.P. (950 A.D.) and the arrival of the Spanish in Central California. This period involves a dramatic change in general economy, characterized by larger village sites situated on high ground, increased evidence of acorn and nut processing, introduction and use of the bow and arrow (indicated by small projectile points), and use of clamshell disc beads as the primary medium of exchange. Sites from this time period often include items of Euro-American manufacture, such as glass trade beads or worked bottle glass. Like the Upper Archaic Period, several sites along the Sacramento and

¹ B.C.: before Christ; A.D.: anno Domini; and B.P.: before present (1950).

² City of Sacramento, *Richards Blvd Redevelopment Plan Amendment*, "Cultural and Historic Resources, Chapter 5, January 2008, Page 5.4-3 through 5.4-4.

³ I bid: A mound deposit containing shells, animal bones, and other refuse that indicate the site of human settlement.

American Rivers have components dating to this era, including the recently identified site in the area around 6th and H Streets in Sacramento.⁴

The neighboring Miwok, whose main territory apparently was originally south of the Cosumnes River, occupied a portion of the southern Nisenan territory, possibly from the confluence of the American River to the Cosumnes River. This is thought to have been a later movement northward by the Miwok to the missions.

Most Nisenan communities were unaffected by the Spanish missions and occupied their native territory until 1826, when Hudson’s Bay fur trappers entered the Sacramento Valley. By the late 1840s, Euro-American intrusion and settlement in the valley had significantly influenced the aboriginal way of life. Those who survived outbreaks of disease (e.g., the 1833 malaria epidemic) and hostilities became laborers on Euro-American farms and ranches or were subjugated to reservations established by the government. By the time ethnographers began to collect information about the Nisenan, only a handful of people were left who knew any details about life before 1840. As such, ethnographic knowledge of the Nisenan is limited.

The Nisenan, who with the Maidu and Konkow form a subgroup of the California Penutian linguistic group, are often referred to as Southern Maidu. The Nisenan exploited the abundant river resources, in particular Chinook salmon, trout, perch, and sturgeon. Major villages were located on natural elevations, or knolls, ridges, and terraces along rivers and other stream courses, with temporary seasonal occupation sites located near important resources.

The Nisenan situated their larger, permanent settlements on high ground further east, up the American River, and into the foothills; the valley floor was typically used as temporary hunting and gathering ground during dry times of the year. Several ethnographic Nisenan villages—Pusune, Momol, Sekumi, and Sama—have been identified near the confluence of the Sacramento and American Rivers. The village of Sama was considered the southern-most Nisenan settlement along the Sacramento River. Pusune was an important village, perhaps serving as a regional center for other small villages located along the American River. Both Nisenan and Kanakas (Hawai’ian natives who arrived in the area with John Sutter) occupied the village of Kadema.

A small village identified in a historic drawing (circa 1852) as the Indian village of Sa’cum was located in what is now downtown Sacramento, in the area around what is now Cesar Chavez Plaza Park. Although not identified by ethnographers, this village is now documented as a prehistoric site (SAC-38), most recently occupied by Native Americans during the Emergent Period.⁵

Prehistoric archaeological sites representing more permanent settlements in the area of the American River are typically found on natural rises that protected the occupants from recurrent flood events. Artificial mounds were often created on these high spots. In fact, many of these sites can be identified on early topographic maps as elevated areas (about 25 feet in elevation) in an otherwise fairly flat flood plain.

Historic Setting

The RDSP area occupies the southern edge of a large expanse of low-lying land, south and east of the confluence of the Sacramento and American Rivers. Before 19th and early 20th century levees, filling and development of the area, the American River followed a different path than it does today. In its natural state,

⁴ Information in this section is from the City of Sacramento, *Richards Blvd Redevelopment Plan Amendment*, “Cultural and Historic Resources, Chapter 5, January 2008, Page 5.4-3 through 5.4-40.

⁵ City of Sacramento, *Richards Blvd Redevelopment Plan Amendment*, “Cultural and Historic Resources, Chapter 5, January 2008, Page 5.4-3 through 5.4-4.

the course of the American River did not remain constant and often changed its course. At the beginning of the historic period, the American River joined the Sacramento River at a point roughly aligned with modern E Street. After devastating floods in 1862, Sacramento citizens rechanneled the American River north to its current junction with the Sacramento River and began building a system of levees to prevent future floods.

Prior to being filled, the RDSP area contained what was then referred to as Sutter Lake, or China Slough, which was divided into roughly two branches -- the south branch connected to the Sacramento River, and the northern branch to the American River. Higher ground between the sections of the lake created a northwest to southeast oriented promontory. This promontory is shown subdivided on the 1854 U.S. Coast Survey map and labeled the American Fork Addition, more commonly known as Slater's Addition.

Slater's Addition was surveyed with streets and parcels laid out on the 1848 plat at the same time as the rest of the Sacramento city street grid; the Sacramento Gas Works was shown at the northwest end of Slater's Addition on the bank of the Sacramento River. The area was crisscrossed by a number of streets (Sycamore, First, Broad and Lake) that no longer exist. Settlement began in this area during the 1850s, with a fair amount of development between H and F streets by 1854. The earliest recorded historical activity was a possible dock at 4th and I streets and the construction of Sacramento's first levee along I Street around 1850. Many ships anchored off Slater's Addition, which gave rise to the name "Jibboom Street" for its waterfront landing. This area did not develop as rapidly as the central business district between I and M streets. The first assessors map available shows that in October 1852, most of Slater's Addition was still undeveloped.

The Sacramento City Gas Works was established in 1854 with the main plant in Slater's Addition. Service to the City commenced in 1855. The new Gas Plant occupied a triangular block between First, Union, and Sacramento Streets. Flourmills were also established near the mouth of the American River in Slater's Addition, including the Eureka Mills and Levee Mills (later renamed Pioneer Mills) built on the riverfront in 1853.

By 1905, the former American River channel had been reclaimed. The reclaimed area constitutes most of the western portion of the present River District Specific Plan area. Land north of the river was particularly prone to swampland conditions. Lying within the "American Basin," the swamp and overflow area remained essentially unusable until reclaimed by Natomas Consolidated of California, successor to Natomas Water and Mining Company. In 1900, reclamation activities began on a large scale. In 1911, District 1000 was organized, and the reclamation work by Natomas enterprises began. The project is significant in the technological history of California, and because it transformed the area north of the River District into the rich and viable ranch and settlement land it remained until relatively recently. Today the area is known as "Natomas Basin" after the company that created it.

The earliest version of the Natomas Company was formed shortly after the discovery of gold in northern California. The young Natomas Company provided water for gold mining activities during California's early statehood. Over time, the company established other business enterprises throughout the region, and by the mid-1870s, Natomas Enterprises owned orchards, operated a drying plant. The growing company shipped a number of crops to distant eastern markets. By 1883-1884, the Natomas Vineyard Company had been established, with 2,000 acres in plantings, then one of the largest vineyards in the world.

As surface gold diminished, the Natomas Company employed other mining techniques, turning first to hydraulic mining and then, in the early 20th century, to dredging for gold. Several dredging companies combined into the Natomas Development Company between 1906 and 1908. The American Reclamation District was formed in 1906, under the auspices of Natomas Enterprises, and a large property-owner in the area. The construction of the levee system of the lower tract, District 1000, began in 1912. The levees were completed between 1914 and 1915.

The bridges providing access to and through the River District were another key element that influenced the extent and kind of growth the area experienced. The earliest bridges in the area appear to have been the Swift

Bridge and Lisle's Bridge. The crossing of the American River at North 16th Street was the site of Lisle's Bridge, an early and important link connecting Sacramento to the gold mines. The current bridge at N. 16th Street over the American River, constructed in 1915, crosses the river at approximately the same location as the Lisle's Bridge. The presence of the bridge and highway generated the establishment of several early 20th century auto camps in the area. This route has become a modern highway, bringing people to the area. Other bridges built in the first half of the 20th century serving the River District include the I Street Bridge,⁶ constructed in 1911, and the Jibboom Street Bridge, built in 1931.

Early in the 20th century, the construction of a channel or canal extending from the Sacramento River to 12th Street was proposed by the Sacramento Canal, Dock, and Warehouse Company, affiliated with the Sacramento and Sierra Railway (also sometimes called the Sacramento and Tahoe Railway). As early as 1908, the Sacramento and Sierra Railroad Company had installed tracks along North 10th Street.

This railway company owned property along the Sacramento River, south of the current water filtration plant, and wished to establish rail access inland. The anticipated route was to extend through Sacramento to a ranch site area in Orangevale that had been recently subdivided, and then to rich timber lands near Lake Tahoe. The Railway was used to ship lumber directly from Tahoe to the Sacramento River, and encouraged growth and development of early subdivisions in the Orangevale citrus colony near Folsom township. Political and economic difficulties prevented the railroad and road from reaching their destinations'. Consequently, the Orangevale town-site, awaiting the advent of rail access to Sacramento in order to realize its development, did not develop as originally anticipated.

During the 19th and early 20th centuries, the swampy character of the specific plan area limited its potential growth and consequent economic value. Several factors limited the development of the River District for commercial and residential development, in addition to the area's geographical location with its potential for flooding and drainage problems. Bisected or bound by major levees and subject to flooding, the area remained physically and psychologically segregated from the rest of the city. Another historical limitation was the area's proximity to Sacramento's Railyards. Since its' development in the later-half of the 19th century, the Southern Pacific Railyards and the related railroad levee have created a barrier between the downtown and the River District Specific Plan area.

The lower values of the land and the area's proximity to transportation, however, made the area attractive to a variety of industrial enterprises. In 1912, The Pacific, Gas & Electric Company commissioned River Station B, an oil powered steam plant designed by Willis Polk. In the early 1920s, the City constructed a large new water intake and filtration plant near PG&E's River Station B. A major trucking firm located its central operations along North 16th Street. The Bercut-Richards Packing Company began operating a cannery during the 1930s. For many years, the 12th Street Road (part of Old Auburn Road) running diagonally through the eastern portion of the River District provided a primary route to the center of the city. Later, 16th Street joined 12th Street as a one-way corridor to the northeast. Both streets connected to Highway 160. The earlier 12th Street Road and its bridge across the American River accommodated early auto traffic to the northeast. Its presence encouraged the development of several small auto camps and roadside establishments in the River District.

Before long, auto-camps sprang up along North 12th and North 16th Streets to service travelers coming to and from Sacramento along the highway crossing through the area. Light manufacturing establishments, a

⁶ The I Street bridge is outside the RDSP boundaries, however, it did play a critical role in the industrial and social development of the area.

number of oil, gas and petroleum distribution centers, food production factories, and warehouses were also important long-term tenants of the area. Transients and seasonal agricultural workers found inexpensive “lodging” sites along the American River—sometimes renting very small plots of land from a common landlord upon which they were left to create whatever dwelling they could manage.

The Bercut-Richards Cannery represents a major effort by Tom Richards Sr. to develop an industrial park north of Richards Boulevard. During the 1930s, the Cannery emerged as an active and viable enterprise, and encouraged the Continental Can Company to locate across North 7th Street. At one time, the two industrial centers were connected by an overhead can conveyor structure. The cannery complex was a major economic force in the Sacramento region for many years, popularizing “Sacramento” brand tomato products.⁷ Another major agricultural concern, the California Almond Growers Exchange, continues to utilize several structures in the southeast portion of the area, along North A and North B Streets near its’ primary facilities to the east and on C Street, for both storage and production activities. 2010 is recognized as its 100th year in operation. Once the principle produce distribution center for the city, a produce distribution center on North 16th Street has diminished in activity due to the establishment of other such facilities elsewhere in the region. General warehousing and product distribution facilities were both common historically within the area. In particular, a number of petroleum, oil and gas storage and distribution facilities were located nearby. A number of storage tanks at various sites are depicted on the Sanborn Fire Insurance Maps between 1915 and 1952.⁸ Additionally, a major trucking firm operated out of a building on Sproule Avenue. Early urban “pioneers” played a large part in the settlement of the area. One of them was William H. Basler, for whom a street east of North 16th Street was named. By 1913, Basler, a fuel supplier, owned most of the land from North 12th to North 16th Streets, north of North B Street. Basler had a wood-yard and sold coal out of the district. Martin Basler, a relative of William Basler, was an engineer who specialized in levee construction and also lived in the area. To demonstrate his faith in the levee’s strength he built a house next to the levee along the American River.

In 1921, William Dreher purchased a 25 acres of ranch land along North 16th Street, establishing a dairy with thoroughbred Holstein cows. Soon afterward, Dreher began to subdivide his ranch and layout town lots and factory sites. He was one of the first in the area to build streets. He improved the land with curbs, gutters, and sold residential lots. Dreher also had a service and oil station at North 16th Street at the junction of Marysville Road and the American River crossing. His later ventures included the subdivision and sale of summer lots and resort sites at Lake Tahoe. Dreher Street in this area bears his name.

The industrial character of the area, the rivers, and the area’s rail lines and highways through it, attracted the homeless and indigent, and transient agricultural workers. During the Great Depression, many such persons came to the area and formed settlements or camps that became known as “Hooverilles.” These settlements were characterized by small, makeshift shelters and substandard dwellings. Although economic stability returned after World War II, the area retained a substantial population of low income and transient residents. The area’s indigent and destitute residents provided an impetus for organizations like the Salvation Army, Loaves and Fishes, Union Gospel Mission, and other aid groups to establish support facilities in the area. In both healthy economic times and bad, homeless and indigent persons have been a constant social feature of the area.

Shortly after World War II began, the federal government constructed a housing complex on the east end of Richards Boulevard. This development was subsequently taken over by the Sacramento Housing &

⁷ For further information on the Bercut-Richards Cannery see: City of Sacramento, *Township 9 Draft Environmental Impact Report*, “6.4: Cultural Resources”, February 2007, Page 6.4-35.

⁸ City of Sacramento, *Richards Blvd Redevelopment Plan Amendment*, “Cultural and Historic Resources, Chapter 5, January 2008, Page 5.4-3 through 5.4-4.

Redevelopment Agency and is currently operated as the Dos Rios Housing complex. Across Richards Boulevard, Dos Rios School was constructed in 1942.

In 1952, the State of California Printing Plant, designed by the noted Bay Area architectural firm of Wurster, Bernardi and Emmons, was constructed at the southwest corner of North 7th Street and Richards Boulevard. This large plant added to the variety of industrial activities to the River District area.

Small portions of the Project Area were annexed by the city in 1949 and the early 1950s, but the majority did not become part of Sacramento proper until 1960 and 1963. Within the last fifteen years, and especially after the construction of Interstate 5 (I-5) along the areas western edge in the 1960s, the types of uses in the area have been slowly changing, with an increase in office uses, and a complex of motel and fast-food uses west off the I-5/Richards Boulevard interchange. A number of the older industrial structures in the Project Area have been demolished and several new office and warehouse structures and complexes have been built, primarily along Richards Boulevard.

Historic Resource Types

Reflecting its' history, the structures in the area exhibit a variety of structural types and styles. The City's large water filtration plant, the historic water-intake structure and the former PG&E powerhouse all utility-providing services housed in exhibit distinct early 20th century, "period-revival" architectural styles, then commonly used for "civic" structures.

Throughout the RDSP area is an attractive collection of variously-sized industrial and warehouse buildings constructed in the first half of the 20th century, many made out of brick and most with wooden timber trusses. Streets and properties within the area also reflect the industrial and warehouse uses, as many offer raised loading docks and some buildings' walls follow the curve of the adjacent rail spurs. In contrast, the Dreher-Basler residential neighborhood represents a small single-family traditional residential enclave amid the surrounding busy thoroughfares, warehouses, heavy and light industrial, and distribution facilities. The area's mid-20th century school and industrial structures reflect a Moderne or "Mid-Century Modern" style.

Regulatory Setting

The following regulations related to the protection of cultural and historic resources would be applicable to the Proposed Project, during construction and/or implementation of development in accordance with the RDSP.

Federal

There are no federal regulations that are directly applicable to the Proposed Project for the protection of cultural and historic resources.

State

California Environmental Quality Act (CEQA)

Under CEQA, public agencies are tasked to identify and consider the effects of their actions on both "historical resources" and "unique archaeological resources." Pursuant to PRC, Section 21084.1, a "project 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."

Historical Resources

“Historical resource” is a term with a defined statutory meaning (PRC, Section 21084.1 and CEQA Guidelines Section 15064.5 (a) and (b)). The term embraces any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (California Register). The California Register includes resource resources listed in or formally determined eligible for listing in the National Register, as well as some California State Landmarks and Points of Historical Interest. A project is deemed to have a significant effect on the environment if it would cause “substantial adverse change” to the significance of an historical resource (CEQA Section 15064.5 (b)). A substantial adverse change with regards to a historical resource is defined under CEQA as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (CEQA Section 15064.5 (b)(1)). CEQA Guidelines Section 15064.5 (b)(2) provides further detail regarding substantial adverse change.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the California Register and are presumed to be “historical resources” for the purposes of CEQA, unless a preponderance of evidence indicates otherwise or the historic integrity has been compromised. (PRC, Section 5024.1; California Code of Regulations, Title 14)

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified through a historical resources survey process, lead agencies have a responsibility to evaluate them against the California Register criteria prior to making a finding as to a proposed project’s impact on historical resources (PRC, Section 21084.1; CEQA Guidelines, Section 15064.5 (a)(3)). In general, a historical resource, under this approach, is defined as any object, building, structure, site, area, place, record, or manuscript that:

1. Is historically or archeologically significant; or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals or California; and
2. Meets any of the following criteria:
 - a. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
 - b. Is associated with the lives of persons important in our past;
 - c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;or
 - d. Has yielded, or may be likely to yield, information important in prehistory or history.

Potential eligibility also rests upon the integrity of the resource. Integrity is defined as the retention of the resource’s physical identity that existed during its period of significance. Integrity is determined through considering the setting, workmanship, materials, location, feeling, and association of the resource.

CEQA Guidelines Section 15064.5 (b)(3) indicates that a project involving a historic resource and where the work complies with the *Secretary of the Interior’s Standards for the Treatment of Historic Properties* (1995) shall be considered mitigated to a less-than-significant level. In this regard, the designation of Landmarks and Historic districts and listing in the Sacramento Register of Historic & Cultural Resources, recommended as part of the Specific Plan adoption process, would provide for City Preservation review of projects involving

those properties pursuant to the Historic Preservation Chapter 17.134 of the City Code, which has adopted the Secretary of the Interior's Standards for the Treatment of Historic Properties as the City's standards for review of listed properties. Projects that are determined to comply with the Standards would be exempt from further CEQA review (unless other elements of the environment are impacted,) and projects that do not comply with the Standards then could be subject to additional environmental review.

Archaeological Resources

CEQA also requires lead agencies to consider whether projects would impact "unique archaeological resources." PRC, section 21083.2 (g) states that "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets 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 available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person" (PRC, Section 21083.2 (g)).

Treatment options under Section 21083.2 of the PRC include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under section 21083.2 include excavation and curation or study in place without excavation and curation (if the study finds the artifacts would not meet one more of the criteria for defining a "unique archaeological resource").

Advice on procedures to identify cultural resources, evaluate their importance, and estimate potential effects is given in several agency publications, such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to, museums, historical commissions, associations and societies, be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains.

Section 7050.5 (b) of the California Health and Safety code specifies protocols when human remains are discovered. The code states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC.

CEQA Guidelines Section 15064.5 (e) also requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission (NAHC) must be contacted within 24 hours. At that time, the lead agency is required to consult with the appropriate Native Americans as identified by the NAHC and directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the appropriate Native American group(s) for the treatment and disposition of the remains.

Local

City of Sacramento 2030 General Plan Policies

The following General Plan policies would apply to developments within the proposed RDSP area.

HCR 2.1.1 Identification. The City shall identify historic and cultural resources including individual properties, districts, and sites (e.g. archaeological sites) to provide adequate protection of these resources.

HCR 2.1.2 Applicable Laws and Regulations. The City shall ensure that City, State, and Federal historic preservation laws, regulations, and codes are implemented, including the California Historical Building Code and State laws related to archaeological resources, to ensure the adequate protection of these resources.

HCR 2.1.5 National, California, and Sacramento Registers. The City shall pursue eligibility and listing for qualified resources including historic districts and individual resources including historic districts and individual resources under the appropriate register(s).

HCR 2.1.6 Planning. The City shall take historical and cultural resources into consideration in the development of planning studies and documents.

HCR 2.1.11 Compatibility with Historic Context. The City shall review proposed new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context. The City shall pay special attention to the scale, massing, and relationship of proposed new development to surrounding historic resources.

HCR 2.1.12 Contextual Elements. The City shall promote the preservation rehabilitation, restoration, and/or reconstruction, as appropriate, of contextual elements (e.g., structures, landscapes, street lamps, signs) related to the historic resource.

HCR 2.1.13 Adaptive Reuse. The City shall encourage the adaptive reuse of historic resources when the original use of the resource is no longer feasible.

HCR 2.1.4 Demolition. The city shall consider demolition of historic resources as a last resort, to be permitted only if the rehabilitation of the resource is not feasible, demolition is necessary to protect the health, safety, and welfare of its residents, or the public benefits outweigh the loss of the historic resource.

HCR 2.1.15 Archaeological Resources. The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological, historic, and cultural resources including prehistoric resources.

Central City Community Plan (CCCP)

There is a community policy, applicable to the proposed RDSP that is unique to the CCCP that is intended to supplement the citywide policies in the General Plan.

CC.HCR. 1.1 Preservation. The City shall support programs for the preservation of historically and architecturally significant structures which are important to the unique character of the Central City.

City of Sacramento Historic Preservation Chapter of the City Code, Chapter 17.134

The City of Sacramento's Historic Preservation program was established to identify, protect, and encourage the preservation, use or adaptive re-use of the City's rich and diverse historic and cultural resources; to safeguard these resources as valuable assets to the City; provide consistency with state and federal regulations; and ensure that new development neither compromises the resource's eligibility, nor has a significant negative impact on the resource, and to ensure that the proposed project is compatible with the historic resource.

The City of Sacramento's historic preservation program is a Certified Local Government (CLG) program, certified by the National Park Service and the State Office of Historic Preservation (OHP) under the National Historic Preservation Act. As a CLG, the City has adopted a Historic and Cultural Resources Element in its 2030 General Plan and includes a Historic Preservation Chapter in its City Code, which establishes the City's Preservation program. Pursuant to that chapter, the City conducts surveys and designates historic and cultural resources utilizing criteria for listing properties in its Sacramento Register of Historic & Cultural Resources, which criteria is very similar to the criteria used for listing in both the National Register of Historic Places and the California Register of Historical Resources. The City's program includes a Preservation Commission, project review standards which are the Secretary of the Interior's Standards for the Treatment of Historic Properties, and provides for certain incentives to assist property owners with the preservation, adaptive reuse and maintenance of their property.

Sacramento Register of Historical and Cultural Resources

The Sacramento Register includes all designated historic resources adopted by ordinance by the City Council, including individually-designated City Landmarks and all designated City Historic Districts and Contributing Resources within Historic Districts. The Sacramento Register also currently includes the historic properties identified from the earlier, 1999/2000 Railyards/Richards Boulevard Historic Survey for purposes of reviewing 50-year-old-or-older structures proposed for demolition.

The following are the criteria for listing on the Sacramento Register (17.134.170(A)(1)):

- associated with events that have made a significant contribution to the broad patterns of the history of the city, region, state, or nation;
- associated with the lives of persons significant in the city's past;
- embodies the distinctive characteristics of a type, period or method of construction;
- represents the work of an important creative individual or master;
- possess high artistic values; or

- has yielded, or may be likely to yield, information important in the prehistory or history of the city, the region, the state, or the nation.

There are five additional factors to be considered during the nomination process. These factors, as stated in the Historic Preservation Chapter of the City Code (17.134.170 (A)(2)), are:

- A structure removed from its original location is eligible if it is significant primarily for its architectural value or it is the most important surviving structure associated with a historic person or event.
- A birthplace or grave is eligible if it is that of a historical figure of outstanding importance and there is no other appropriate site or structure directly associated with his or her productive life.
- A reconstructed building is eligible if it is historically accurate, if the structure is presented in a dignified manner as part of a restoration master plan; and if no other original structure survives that has the same association.
- Properties that are primarily commemorative in intent are eligible if design, age, tradition, or symbolic value invests such properties with their own historical significance.
- Properties achieving significance within the past fifty years are eligible if such properties are of exceptional importance.

Archaeologically Sensitive Areas

Research performed for the RBAP EIR and the Township 9 EIR determined that several sites within the RDSP area possess the potential for prehistoric and historic era archaeological resources that are eligible for listing on the California Register, including the levee along the south bank of the American River and the former City incinerator site.

Prehistoric Archaeological Sensitivity

Several areas within and surrounding the River District have been surveyed for archaeological resources. Most cultural sites within one mile of the survey boundaries were recorded during efforts in the 1930s. Other sites were discovered as part of more recent development projects. A few sites in proximity to the RDSP area have undergone limited excavation. One such site is CA-Sac-25 (also known as the Joe Mound), a very large village mound located in the vicinity of Discovery Park. This site may be the ethnographic village of Pujune, but this remains unconfirmed. Portions of the unconfirmed ethno-historic village of Momol may also be located within the RDSP area.⁹

The exact location of prehistoric archeological resources is confidential information and for security purposes the North Central Information Center (NCIC) maintains an inventory of archeological resources for north-central California. The City of Sacramento requested NCIC conduct a records search to determine the areas of prehistoric archeological sensitivity within the River District and did not receive a response from them. Therefore, it is assumed that, based on previous studies in the area, given the recorded resources and the known patterns of prehistoric land use, there is a moderate to high sensitivity for prehistoric-period cultural resources in the RDSP area. Several additional cultural/archaeological resource assessment reports pertaining

⁹ For a complete discussion of prehistoric archaeological resources in the vicinity of the Railyards, see City of Sacramento, *Township 9 Draft Environmental Impact Report*, “6.4: Cultural Resources”, February 2007.

to lands adjacent to the RDSP boundaries have been conducted. These reports include the area along the American River corridor. These analyses include Peak’s survey of Discovery Park (1978), the American River Parkway (1973), and MacBride’s overview of the American River Parkway (1976).

Historical Archaeological Sensitivity

The levee along the south bank of the American River has been recorded with the California Historical Resources Information System (CHRIS) as a historic resource. Portions of the Southern/Western Pacific and Sacramento Northern Railroads have also been recorded as historic resources. CHRIS information is confidential and stored at the North Central Information Center (NCIC). The City of Sacramento requested NCIC conduct a records search to determine the areas of historic archeological sensitivity within the River District; however, no response was received. As with the potential prehistoric resources, and given the recorded resources and the known patterns of local historic land use, there is a moderate to high sensitivity for historic-period cultural resources in the RDSP area.

Overall, it can be concluded that there is a potential for significant prehistoric and historic archaeological resources within the RDSP area. Scatters of historic artifacts, refuse-filled features, and remnants of both commercial and residential structures, consisting of structural footings associated with domestic and industrial buildings as well as artifacts from the industrial activities that were carried out within them, may occur in the form of buried layers and features dating from the early 1840s to the early 20th century. The earliest historic settlement and building levels, which predate the major flood control efforts and the change in the course of the American River in 1868, could be deeply sealed by floodplain deposits. Archaeological sensitivity increases in the vicinity of previously inventoried prehistoric and historic sites and features.

Historic Resources in the Specific Plan Area

The RDSP area contains several historic structures and/or districts listed in, or eligible for, listing in the Sacramento, California, and/or National Registers (See Figure 5.3-1 and Table 5.3-1) (with the exception of some structures. See notes to table).

Table 5.3-1 Recommended River District Individual Landmarks		
Assessor Parcel Number	Address	Occupant/ Historic Occupant
002-0051-002	116 N. 16 th Street	Pipe Works Fitness/Sacramento Pipe Works
N/A	Jibboom St. & American River	Jibboom Street Bridge
001-0210-038	101 Bercut Drive	Water Filtration Plant
001-0190-004	400 Jibboom Street	PG& E Plant, Station B
001-0130-022	311 N. 12 th Street	Loaves & Fishes/Acme Cabinet
001-0130-007	1341 N. C Street	Firehouse
001-0120-018	524 N. 7 th Street	McKesson & Robbins/Kirk-Geary
001-0082-001	700 Dos Rios	Dos Rios School
001-0031-008	950 Richards Blvd.	Sacramento Theatrical Supply/Coffing Reddington Warehouse
001-0081-006	521 N. 10 th Street	Admail West/Volker Flooring Warehouse

001-0090-005	1100 Richards Blvd.	U-Haul & Storage/Zellerbach Warehouse
001-0101-005	1400 Richards Blvd.	Quonset Huts
<p><i>Note:</i></p> <p>1. The addresses of the properties may not be all the addresses associated with the property. The addresses shown reflect the address designated for the parcel in the County's Assessor Parcel Number (APN) records.</p> <p>2. Township 9 structures, since entitlement already allows most everything to be demolished; and,</p> <p>3. Structures on sites of Continental Plaza and Township 9 are not included since these two projects currently have entitlement to allow demolition of the structures, with adopted mitigation.</p> <p>4. The State Printing Plant is not shown because the RDSP proposes streets over portions of the building. See the analysis of this proposed action in Impact 5.3-1.</p>		

In July 2009, Historic Environment Consultants completed an update of the 1999/2000 Richards Boulevard Architectural and Historical Property Survey (River District Survey). The River District Survey identifies and evaluates the potential eligibility of historic resources within the RDSP boundaries. Table 5.3-2 is a list of resources the River District Survey deemed eligible for listing on the Sacramento and California Registers.

Table 5.3-2		
Recommended North 16th Street Historic District Contributing Resources		
Assessor Parcel Number	Address	Occupant/ Historic Occupant
002-0054-001	83 N. 17 th Street	Capital Machine & Welding Works
002-0055-002	1601 N. A Street	California Almond Growers Exchange
002-0053-004	131 N 16 th Street	California Almond Growers Exchange
002-0051-002	116 N. 16 th Street	Pipe Works Fitness/Sacramento Pipe Works
002-0051-002	200 N. 16 th Street	Produce Terminal
001-0151-001	Adjacent to 200 N. 15 th Street	Rail Right of Way
001-0153-001	211-217 N. 16 th Street	Ruland's Office Furniture
001-0152-018	221 N. 16 th Street	Wood Bros. Carpet/W.A. Ward Seed Co.
001-0152-017	1615 Thorton Ave.	Wood Warehouse/Ward Warehouse
001-0152-019	235 N. 16 th Street	Vacant
001-0142-013	318 N. 16 th Street	Flying "A" Service Station
001-0152-004	1610-1616 N. C Street	Vacant/Cardinal Scale/Top Hat Potato Chip Factory
001-0142-018	1401-1451 N. C Street	Vacant/Cardinal Scale/Top Hat Potato Chip Factory
001-0142-019	1501 N. C Street	Vacant/California Packing Corp.
001-0142-020	1515 N. C Street	Office/California Packing Corp.
001-0142-014	1527 N. C Street	Pacific Flooring/Beverage Distribution
001-0141-022	1448-1503 McCormack	Tom's Refrigeration/Hancock Oil Co.

001-0141-025	1517 McCormack	Power Break Service
001-0141-017	400 N. 16 th Street	Railbridge Winery
001-0141-016	410 N. 16 th Street	Vacant/Truck Sales building
001-0141-014	430 N. 16 th Street	Prolo Press/Sunland Oil Co.
001-0141-024	470 N. 16 th Street	Crest Carpet/Mack Truck Int'l
001-0103-009	500 N. 16 th Street	Capital Sheet Metal/Western Machinery Co.
001-0151-002	Adjacent to 200 N. 15 th Street	Rail Right of Way
001-0152-006	1610-1616 N. C Street	Vacant/Cardinal Scale/Top Hat Potato Chip Factory
001-0141-021	1448-1503 McCormack	Tom's Refrigeration/Hancock Oil Co.

While some of these resources are not currently listed or nominated for listing on any historical register, these buildings/structures have been determined “historic resources” for the purposes of CEQA and any project that may cause a “substantial adverse change” must be considered as having a significant environmental impact (Guidelines Section 15064.5(b)).

The properties eligible for individual listing vary in age, styles and uses, from a bridge, to warehouses, a power station, a gas station and a school, among other types of structures. These structures evidence the River District area’s significant role in Sacramento’s warehouse, transportation, distribution and industrial development and the historical development and evolution of the area until 1959; the 2009 historic resources survey update evaluated structures that were 50 years old or older, hence the 1959 date above.

The district reflects Sacramento’s role in the industrial development of the Sacramento Valley and of California. The buildings in the North 16th Street Historic District vary in style from vernacular industrial to Modern, within the Historic District’s period of significance, from 1914 to 1938. Simple classical ornamentation is found on some of the earlier buildings, and a streamline look on the newer buildings. Railway tracks to the north, a city park to the west, residential area to the east, and surface parking and new commercial to the south form the boundaries of the North 16th Street Historic District, but note that the North 16th Street Historic District boundaries(Figure 5.3-2), includes a small area outside the RDSP project area.

Levees and Embankment

A portion of the levee along the Sacramento River, in the vicinity of the Sacramento Water Treatment Plant, was inventoried and evaluated in 1998 (CA-SAC-463-H) as part of the project to construct the new intake facility for the Sacramento River Water Treatment Plant. Although levees along this portion of the Sacramento River were originally built in the 1860s, the levee by the Water Treatment Plant is effectively dated to the 1940s. It was built as part of the US Army Corps of Engineers’ (Army Corps) Sacramento River Flood Control Project. The Army Corps upgraded the levee in 1956 as part of a levee improvement project associated with the Folsom Dam Project of that period, which included improvements of levees along the Sacramento River from the junction with the American River south to the Tower Bridge. Although recognized for its potential historical association with early flood control in Sacramento, the levee does not appear to meet the criteria for listing in the National Register because it lacks sufficient significance within its historic context and it does not retain historic integrity. In light of the analytical record of the Sacramento River levee system for that new intake facility project, this portion of Sacramento’s flood control infrastructure is not considered a historic resource.

The remaining Sacramento River levee along the western edge of the River District, immediately adjacent to the portion of levee evaluated in 1998, shares a similar history, particularly as it relates to the Sacramento River Flood Control Project and improvements that the Army Corps made to the levees in the vicinity. Therefore, based on lack of historic significance and questionable integrity, the portions of Sacramento River levee in the RDSP area is not a historical resource for the purposes of CEQA.

While the Army Corps has recognized flood control project levees on the Sacramento River as eligible for listing on the National Register in their recent emergency work to upgrade levees around the city, this conclusion was meant to facilitate the environmental review process for levee improvement projects, wherein the State Historic Preservation Office (SHPO) accepts a presumed eligibility and reviews the potential effects that the emergency project might have on the various project levees. It is understood that this presumed eligibility is only used for consideration under the emergency levee improvement projects.

The levee along the southern boundary of the RDSP area from I-5 to 12th Street appears to have been mostly constructed in the early 20th century, prior to the late 1920s, although a portion of it may have its origins in the 1860s before the American River channel was moved northward. It is likely that Southern Pacific constructed the berm along the southern edge of the RDSP area as a second protection measure in addition to the levees built along the American River by Reclamation District 1 in the 1910s. The proposed RDSP would not disturb or affect this levee.

River District Specific Plan

The proposed RDSP area is divided into six distinct subareas that illustrate both the historical patterns of development in the area and anticipate future development (see Figure 3-6). Any new uses proposed for the historic resources would be guided by the uses proposed within each of these Specific Plan sub areas, and any potential physical impacts of proposals for new uses of existing structures would be evaluated pursuant to the City's Historic Preservation Chapter of the City Code, once the properties are designated and added to the Sacramento Register of Historic Places. Two sub-areas are noted below, specifically as they concern identified historic resources.

North 7th Street Subarea

The previously approved Township 9 PUD and the Continental Plaza PUD are both located within the North 7th Street subarea. The Bercut-Richards Cannery was identified both the 1999/2000 Railyards/Richards Boulevard Historic Survey and in the Township 9 EIR as an eligible historic resource. Entitlements for the development both properties have been approved, and all structures, save the Scale House at the Township 9 project, have been, are being, or are to be demolished. Therefore those two historic resources are not included in the resources proposed for designation and listing in the Sacramento Register as part of this project.

Also of note in this subarea particularly is the impact of the proposed new street grid configuration for the RSPD as it would involve the site and portions of the State Printing Plant's structure, one of the eligible historic resources in the survey. The proposed street grid alignments are a key component of the entire RDSP and its overarching goals and policies relative to its connectivity, walkability and potential for a new mix of uses in the RDSP area, and as such the State Printing Plant structure is not being nominated for listing in the Sacramento Register as part of the RDSP process.

North 16th Street Subarea

This section of the River District is characterized by warehouses, social services, and commercial service uses. The North 16th Street area contains the proposed North 16th Street Historic District, characterized by over 20 buildings, many of brick masonry construction mostly from the 1920s. These buildings are currently occupied by a mix of businesses and social services, but historically housed light industrial or distribution activity serviced by both rail and truck. The industrial feeling of the proposed historic district is complimented by the nearby Blue Diamond Growers complex and the Globe Mills housing development at 12th and C Streets.

Under the RDSP the North 16th Street Subarea is anticipated to become an eclectic area that retains its light industrial uses and associations. The area will also incorporate an additional mix of residential, live-work, and commercial uses through infill projects and industrial building conversions and adaptive reuse.

The Specific Plan encourages better connections between the Dos Rios Subarea and the American River Parkway, taking advantage of natural views and recreational opportunities. Abandoned railroad spurs cut that through the area. Under the RDSP, these tracks will be converted into a bikeway connection to the American River Parkway.

Streets

Full implementation of the RDSP requires the construction of several streets within the Specific Plan area. The RDSP aims to extend the central city grid pattern into the River District. North 5th Street will extend from North B Street to Richards Boulevard and North 3rd Street will extend from Bannon Street to Richards Boulevard. New portions of North 5th Street will traverse currently developed parcels, including the State of California Printing Plant, which is the only historic structure that would be affected by these plans. New portions of North 3rd Street will cross city-owned parcels (currently paved with no structures). The backbone circulation improvements of the RDSP demands that some existing streets be widened or otherwise improved.

Impacts to Prehistoric and Historic Resources

Methodology

Historic and cultural resources within the RDSP area have been identified through searches of the North Central Information Center, previous environmental documents and the 1999/2000 and 2009 update of the *River District Architectural and Historical Property Survey*, prepared by Historic Environment Consultants. The historic survey recommended properties eligible for listing in the Sacramento and California Registers of Historical Resources. These properties were analyzed relative to already-approved entitlements and relative to the proposed RDSP to determine whether the proposed project could result in substantial changes in the significance in historic resources.

As previously noted, it can be reasonably assumed that, due to the proposed project's location, especially adjoining two major waterways, there is a high probability of unknown resources that could be impacted during future development of the parcels or installation of supporting infrastructure. The programmatic nature of the RDSP requires that further analysis be undertaken on a project-by-project basis to avoid damaging significant archeological resources.

Section 15064.5 of the CEQA Guidelines is used to define a "historic resource" and to define a substantial change in the significance of a historical or archeological resource/site. Redevelopment projects and development engendered by redevelopment activities have the potential to cause a substantial adverse change

to historical and prehistorical resources through alteration of those resources and their immediate surroundings. The analysis in this section programmatically examines the potential impacts that redevelopment could have on cultural resources within the River District Specific Plan area.

In January of 1999 the City of Sacramento hired Historic Environment Consultants to compile the River District Architectural and Historical Survey of properties within the Railyards and Richards Boulevard Special Planning District areas, which surveyed and evaluated structures that were 50-years-old or older for their eligibility for listing in the California Register of Historical Resources and the Sacramento Register of Historic & Cultural Resources. As part of the proposed RDSP the 1999/2000 historic resources survey was updated, evaluating those properties which became 50-years-old-or-older since the earlier survey, in July, 2009. A compilation of the two surveys is found in Appendix D.

The River District Historic Survey identifies and evaluates built historic resources within the RDSP area according to various attributes including type of structure, use, construction type, condition, style, contribution to the area, and potential eligibility for listing in the California Register of Historical Resources and the Sacramento Register of Historic & Cultural Resources. The survey methodology included extensive historic research regarding the study area to gain an understanding of its history and evolution, and the development of an historic context for the evaluation of historic and cultural resources within the RDSP area.

The North Central Information Center (NCIC) is the official Cultural Resources Information Center for this area of the State. In accordance with Public Resources Code (PRC) Section 21000 (et seq.), the NCIC was asked to ascertain all known and potential archeological resources within the Project Area. As of the release date of this document for public review (July 14, 2010), the City has not yet received a response from the NCIC. If a response is received prior to the certification of the EIR, the City will incorporate the letter and the findings into the Final EIR and, if necessary, revise the analysis in the Draft EIR. As a worse-case scenario, this analysis assumes that there are both known and previously undiscovered cultural resources within the proposed RDSP area.

Impact 5.3-1	Implementation of the RDSP could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines Section 15064.5.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to historical resources than area covered by the General Plan (Page 6.4-26, MEIR).		
Mitigation/ polices included in General Plan EIR applicable to project	HCR 2.1.1 Identification HCR 2.1.2 Applicable Laws and Regulations HCR 2.1.5 National, California, and Sacramento Registers HCR 2.1.6 Planning HCR 2.1.11 Compatibility with Historic Context HCR 2.1.12 Contextual Elements HCR 2.1.13 Adaptive Reuse HCR 2.1.14 Demolition	
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than Significant</i> <i>Potentially Significant (for State Printing Plant only)</i>	
Additional Mitigation for Project	MM 5.3-1	<i>None</i> <i>None available (for State Printing Plant only)</i>
Residual Significance	<i>Less than Significant</i> <i>Significant and Unavoidable (for demolition of State Printing Plant only)</i>	

Redevelopment activities could involve the demolition or moving of existing structures or the removal or alteration of significant historical resources over the life of Specific Plan. If a building subject to demolition, movement, or significant alteration were to represent historic resources eligible for listing in the California Register or Sacramento Register, their damage or destruction would represent a significant impact.

Beside project-related work that will be analyzed at that level, the River District Specific Plan's most significant impact upon historic resources involves the proposed street grid and its impact upon the State of California Printing Plant. This is a significant and unavoidable impact.

Implementation of the RDSP will encourage development of the Specific Plan area by installing supportive infrastructure and rezoning the industrial area to support a creative mix of property types. Under CEQA any substantial adverse change to a significant historical resource is considered a significant environmental impact. Specifically, a "substantial adverse change" is the demolition, destruction, relocation, or alteration that would impair the building's historic significance (CEQA Guidelines Section 15064.5(b)).

To ensure future projects under implementation of the RDSP take into account the potential environmental impact to historic resources any future development project will be required to evaluate all historical resources affected by their activities. The resources recommended for listing in the Sacramento Register are listed in Tables 5.3-1 and 5.3-2.

Under Section 15064.5 of the CEQA Guidelines, resources listed in a local historic register are to be considered historically significant for the purposes of CEQA. Unless a preponderance of evidence can demonstrate a resource no longer maintains its historic significance, any work that may cause a substantial adverse change to a listed resource shall be prohibited. At this programmatic level it is reasonable to assume that listing the historic properties identified herein in the Sacramento Register would reduce the potential significant impact to a level that is less than significant. Due to the significant impact from the RDSP project on the State Printing Plant, this RDSP does not recommend it be listed in the Sacramento Register.

Implementation of the RDSP will encourage development of the Specific Plan area by installing supportive infrastructure and rezoning the industrial area to support a creative mix of property types. Under CEQA any substantial adverse change to a significant historical resource is considered a significant environmental impact. Specifically, a "substantial adverse change" is the demolition, destruction, relocation, or alteration that would impair the building's historic significance (Section 5020.1).

To reduce the potential impact to historic resources that would result from implementation of the RDSP, listing of recommended Landmarks and the North 16th Street Historic District and its Contributing Resources in the Sacramento Register would provide for future project-specific Preservation review, utilizing the Secretary of the Interior's Standards for the Treatment of Historic Properties, for decisions as to proposed future alterations, additions, new construction or demolitions. Specific future projects that comply with the Secretary of the Interior's Standards are considered to have a less than significant impact on historic resources.

To ensure future projects under implementation of the RDSP take into account the potential environmental impact to historic resources any future development project shall evaluate all historical resources affected by their activities. The resources recommended for listing in the Sacramento Register are listed in Table 5.3-1.

Under Section 15064.5 resources listed in a local historic register are to be considered historically significant for the purposes of CEQA. Unless a preponderance of evidence can be brought to bear demonstrating a resource no longer maintains its historic significance, any work that may cause a substantial adverse change to

a listed resource shall be prohibited. At this programmatic level it is reasonable to assume that listing the historic properties identified herein in the Sacramento Register will reduce the potential significant impact to a level that is ***less than significant***. Due to the significant impact from the RDSP project on the State Printing Plant, this RDSP does not recommend it be listed in the Sacramento Register; therefore, the impact to the State Printing Plant is considered ***Significant and Unavoidable***.

Mitigation Measure

5.3-1

None required.

None available (for State Printing Plant only)

Impact 5.3-2	Implementation of the RDSP could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to archeological resources than area covered by the General Plan (Page 6.4-32, MEIR).		
Mitigation/ polices included in General Plan EIR applicable to project	HCR 2.1.1 Identification HCR 2.1.2 Applicable Laws and Regulations HCR 2.1.6 Planning HCR 2.1.15 Archaeological Resources	
Project significance after mitigation/ policies included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.3-2	See full text below.
Residual Significance	<i>Significant and Unavoidable</i>	

The RDSP area is located in an area of Sacramento that was settled early in its history, as discussed above, and is anticipated to contain unknown sub-surface resources. Both prehistoric and historic archaeological resources have been identified throughout the Project Area. Implementation of the RDSP would include ground disturbing activities such as infrastructure improvements, grading, trenching, and excavating for development.

Proposed infrastructure improvements and new development in accordance with the RDSP could encounter archeological resources relating to earlier periods of history and prehistory. It is possible for buried resources to be uncovered during any subsurface construction activity, and such resources and their immediate surrounding matrix could be damaged.

Prehistoric and archaeological resource issues in the City of Sacramento are addressed through the City’s environmental review and permit processing procedures. An archaeological report may be necessary to append any entitlement application and the City’s standard archaeological resource mitigation measures may be required as a condition of approval. Nevertheless, disruption during construction could result in the permanent loss of potentially important cultural resource data, which is considered a ***significant impact***.

Mitigation:

Previous studies have applied mitigation measures to lessen the significant impacts on archaeological resources in the RDSP area.¹⁰ Similar measures to the proposed mitigation aim to ensure that:

- California Register eligible resources are identified,
- The important information contained of these resources is recovered and the resources are treated appropriately, and
- Human remains are treated appropriately.

Mitigation 5.3-2 outlines a plan to test sites in the RDSP area where projects will involve excavation or other ground-disturbing activities, and to handle any archeological resources uncovered during ground-disturbing construction anticipated by the RDSP. While unforeseen archeological resources may still be found during any ground disturbing activities, following the guidelines in Mitigation 5.3-2 will significantly reduce potential impacts to archeological resources in the RDSP area; however, because the potential impacts to significant archeological resources may still occur during ground disturbing activity there is the potential that implementation of the RDSP may cause a **significant environmental impact** as defined by CEQA Guidelines Section 15064.5.

Mitigation Measure

The following shall apply to any ground disturbing activities associated with development in accordance with the RDSP.

5.3-2

a. Prior to any excavation, grading or other construction on the project site, and in consultation with Native American Tribes and the City's Preservation Director: a qualified archaeologist will prepare a testing plan for testing areas proposed for excavation or any other ground-disturbing activities as part of future projects, which plan shall be approved by the City's Preservation Director. Testing in accordance with that plan will then ensue by the qualified archaeologist, who will prepare a report on findings, and an evaluation of those findings, from those tests and present that report to the City's Preservation Director. Should any findings be considered as potentially significant, further archaeological investigations shall ensue, by the qualified archaeologist, and the archaeologist shall prepare reports on those investigations and evaluations relative to eligibility of the findings to the Sacramento, California or National Registers of Historic & Cultural Resources/ Places and submit that report to the City's Preservation Director and SHPO with recommendations for treatment, disposition, or reburials of significant findings, as appropriate. Also, at the conclusion of the pre-construction testing, evaluation and reports and recommendations, a decision will be made by the City's Preservation Director as to whether on-site monitoring during any project-related excavation or ground-disturbing activities by a qualified archaeologist will be required.

b. Discoveries during construction: For those projects where no on-site archaeological monitoring was required, in the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during construction-related earth-moving activities, all work within 50 meters of the resources shall be halted, and a qualified archaeologist will be consulted to assess the significance of the find. Archeological test excavations shall be conducted by a qualified archeologist to aid in determining the nature and integrity of the find. If the find is determined to be significant by the qualified archeologist, representatives of the City and the qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered

¹⁰ See RBAP Mitigation Monitoring Plan adopted MM 4.4-1(a) through 4.6-1(g).

shall be subject to scientific analysis and professional museum curation. In, a report shall be prepared by the qualified archeologist according to current professional standards.

c. *If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.*

d. *If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions.*

e. *In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.*

f. *If a human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find, and the County Coroner, and City's Preservation Director, shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-interment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place. Work can continue on other parts of the project site while the unique archeological resource mitigation takes place.*

Cumulative Impacts

The cumulative context for historic resources is the County of Sacramento. Archeological resources are generally understood on a much wider geographical context; therefore, the cumulative context is the known territory of the local Native American population, which considers portions of seven counties.

Impact 5.3-3	Implementation of the RDSP, in conjunction with other development within the Central Valley, could cause a substantial change in the significance of a historic or archaeological resource as defined in CEQA Guidelines Section 15064.5.	
Additional Mitigation for Project	MM 5.3-3	<i>Mitigation Measure 5.3-2</i>
Residual Significance	<i>Significant and Unavoidable</i>	

As stated in the MEIR for the 2030 General Plan (Page 6.4-31), the potential loss of historic and cultural resources could result from future development in Sacramento County and the other areas that formed the territory of local Native American populations. This was determined to be a Significant and Unavoidable impact.

Although structures may be listed as historic resources, or potentially historic resources, the listing itself does not guarantee protection. Although future development would be subject to the requirements of CEQA, full mitigation of impacts on every historic resource would be considered infeasible. As noted in Impact 5.3-1, the proposed RDSP project would demolish a structure that is eligible for listing on a historic register in order to continue the street grid pattern from south of the RDSP project area. Therefore, the Proposed Project would result in a considerable contribution to the cumulative impact and the cumulative impact would be Significant and Unavoidable.

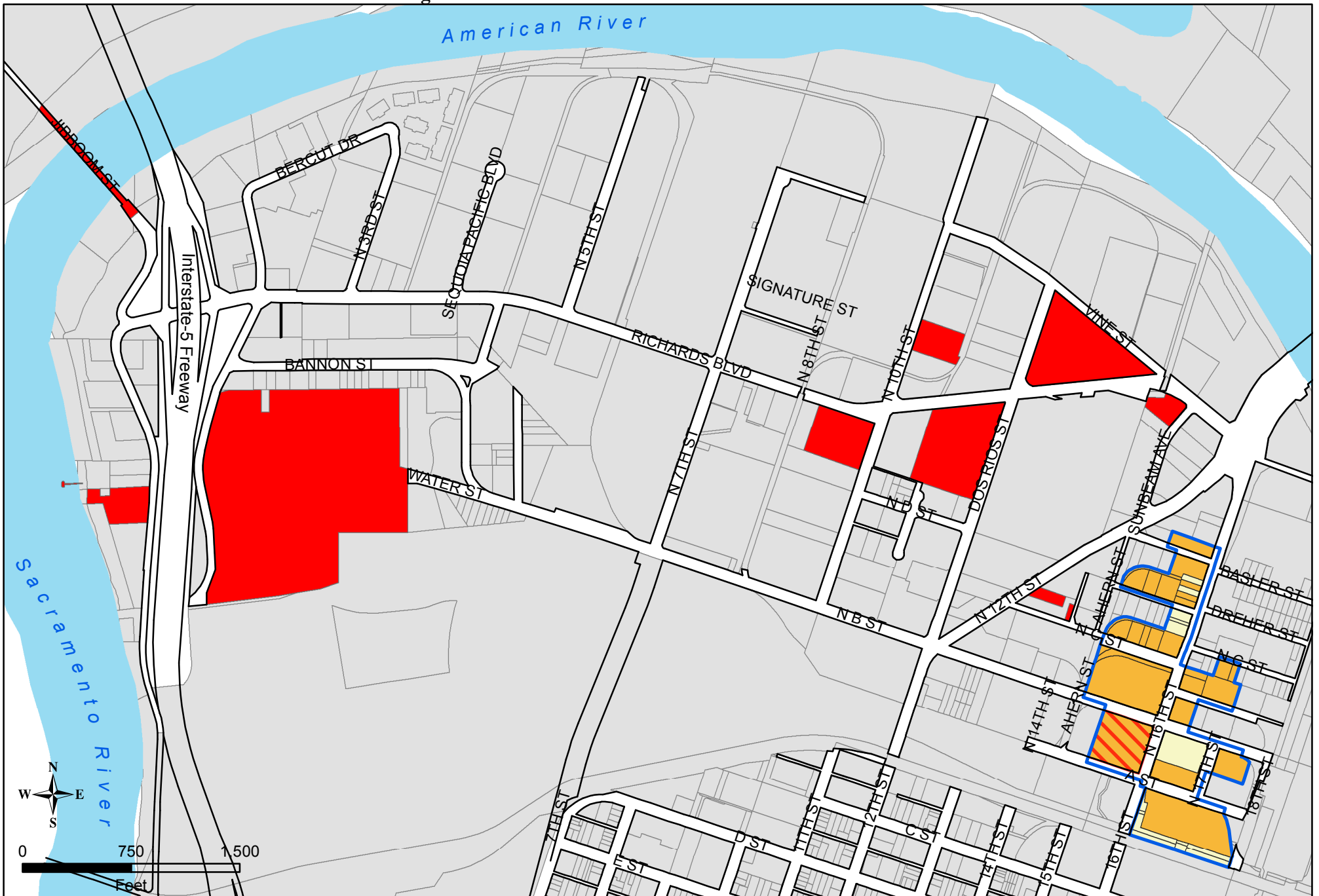
The potential for the continued loss of cultural resources in the seven-county area was determined to be Significant and Unavoidable. Although cultural resources can sometimes be preserved when discovered during ground-disturbing activities, there is no guarantee that these resources can be protected and preserved. Due to the project's location at the confluence of two rivers, there is the potential for discovery of previously-unknown cultural resources. If, despite implementation of Mitigation Measure 5.3-2 and compliance with General Plan Policy HCR 2.1.15, which requires compliance with protocols that protect cultural resources, inadvertent impacts to such resources occur, the project's contribution to the cumulative loss would be considerable.







For these reasons, the project's contribution to the cumulative loss or damage of historic and cultural resources would be ***Significant and Unavoidable***.

Mitigation Measure

None available.

Figure 5.3-1: River District Recommended Historic Resources

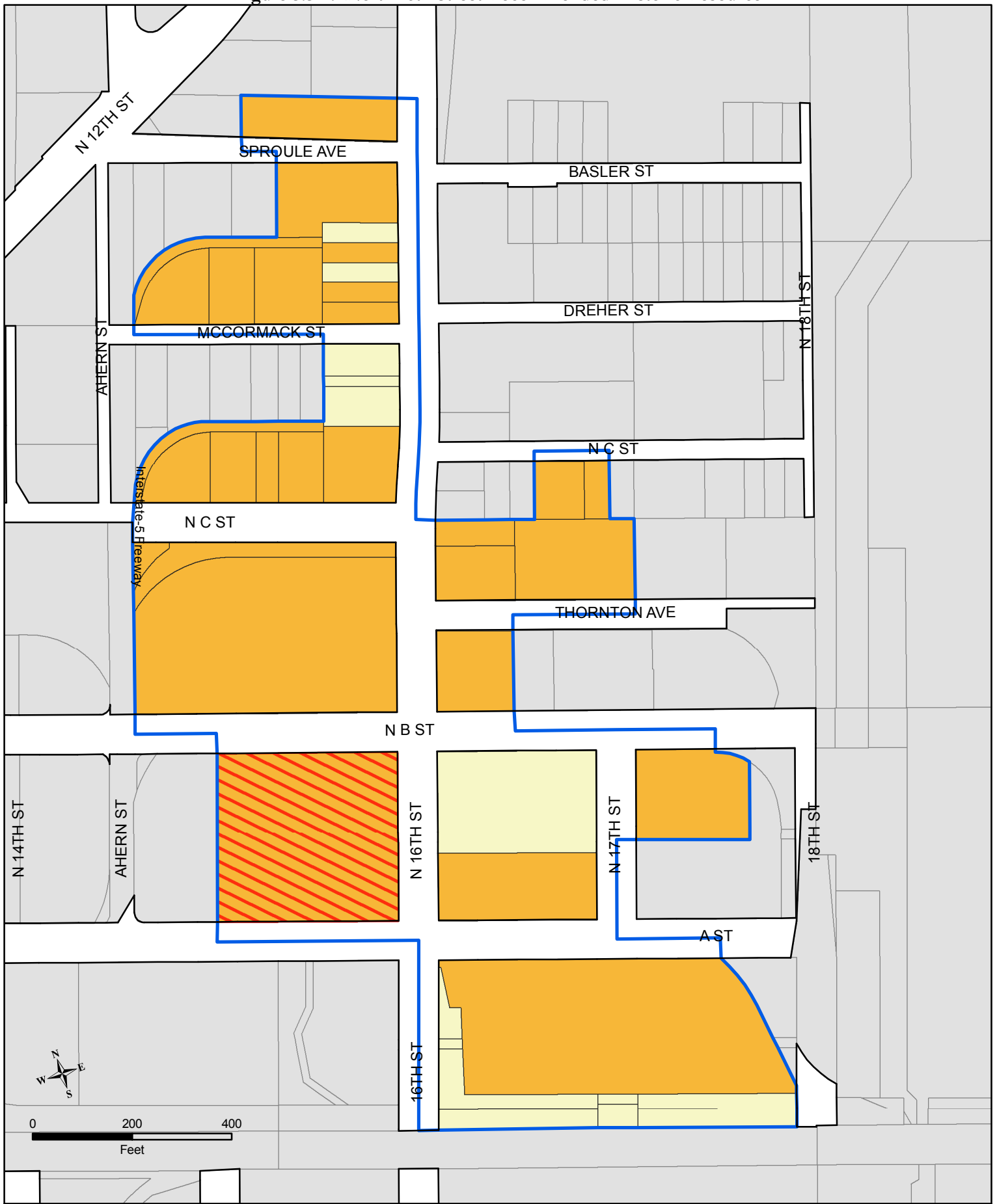







-  North 16th Street Historic District Boundary
-  North 16th Street Recommended Landmarks
-  Recommended Landmarks
-  Contributing Resources
-  Non-Contributing Resources
-  Parcels

River District Recommended Historic Resources



Figure 5.3-2: North 16th Street Recommended Historic Resource



-  North 16th Street Historic District Boundary
-  Contributing Resources
-  North 16th Street Recommended Landmarks
-  Non-Contributing Resources
-  Parcels

North 16th Street Recommended Historic District



5.4: HAZARDS AND HAZARDOUS MATERIALS

Chapter 5.4

Hazards and Hazardous Materials

Because of the past industrial uses on various parcels within the RDSP area, there are areas of known contamination, both in the soils and groundwater. This chapter lists the known contaminated sites and sites with the potential for contamination within, or near, the RDSP area. The analysis focuses on the potential for construction of backbone infrastructure or development of the individual parcels in accordance with the RDSP, to result in the encounter or release of hazards or hazardous materials.

Information for the preparation of this chapter was obtained from the City's *2030 General Plan Master EIR, Richards Amendment/Railyards Redevelopment Plan Draft EIR*, and data from State and local agency databases containing information regarding hazardous materials uses, wastes, and environmental contamination.

The 2030 General Plan MEIR, in particular Chapter 6.6, Hazards and Hazardous Materials, is hereby incorporated by reference.

In response to the NOP, the County of Sacramento Environmental Management Department notified the City of a previous landfill area adjacent to the RDSP site on the east. In addition, the California Integrated Waste Management Board responded with information about the presence of the landfills and notified the City of the potential for volatile landfill gas to migrate to the RDSP area (see Appendix A). These issues are addressed in this chapter.

The 2030 General Plan examines the potential hazards due to projects located near airports. The RDSP area is not within a clear, approach-departure, or overflight zone of any local airport.¹ Therefore, this topic is not addressed in this EIR.

The City is currently processing an application for redevelopment of the former PG&E Power Station B and the Jibboom Junkyard located at 400 and 450 Jibboom Street. The site is proposed for development with a Powerhouse Science Center. Due to the past uses of the sites as a scrap metal recycling facility, there is known and potentially uncharacterized near-surface soil contamination from lead and total petroleum hydrocarbons. Both sites are undergoing environmental remediation via a Remedial Action Plan and a Voluntary Cleanup Program under the supervision of the U.S. Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), and Department of Water Resources (DWR). Because this project is independent of the proposed RDSP and the site is currently undergoing remediation, this EIR does not address the potential hazards due to construction activities on, and future use of, the site.

The hazards and hazardous materials on the site of the previously-approved Township 9 project were previously analyzed and potential impacts due to construction activities and future uses of the site were mitigated in the Draft EIR for that project. The Phase 2 Environmental Site Assessment prepared for the Township 9 project site did not find constituents in either soil or groundwater that required further cleanup action.² For these reasons, this analysis does not include the Township 9 project area.

¹ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Figure 6.6-1.

² City of Sacramento, *Township 9 Draft Environmental Impact Report (SCH 2006072077)*, Volume 1, February 2007, Page 6.6-3.

Environmental Setting

Due, in part, to the close proximity to major rail and road arteries, the RDSP area became a focus for the development of light industrial uses. The RDSP area currently has approximately five million square feet of light industrial businesses.

Sites with Known Contamination within RDSP Area

Business practices and the laws that regulate hazardous materials use and disposal have changed dramatically over the years. Many businesses through intentional action, lack of awareness, accidental occurrences, or those that pre-date requirements have caused soil and/or groundwater contamination on and around their properties. The proposed RDSP contains parcels that were once contaminated and are now clean, as well as some parcels that are currently undergoing remediation. Federal and State agencies responsible for hazardous materials management, along with the County, maintain databases of such sites. The table lists the parcels with known contamination within the RDSP area and the status of the remedial activities. Some of the parcels have a more detailed description of the hazards following the table.

Table 5.4-1					
Known Contaminated Sites within the RDSP Area					
Business	Address	Database/ Oversight Agency	Identification Number	Contaminant (Soil or Groundwater)	Notes
Yellow Cab Co.	900 Richards Blvd	GeoTracker (LUST cleanup site)/ Sac County LOP & CA RWQCB	T0606701097	Gasoline (GW)	Ongoing monitoring of wells during remedial actions
Office of State Printing	344 North 7 th Street	GeoTracker (LUST cleanup site)/ Sac County LOP & CA RWQCB	T0606792018	Solvents or non-petroleum hydrocarbon (GW)	See text for further information.
SP- Purity Oil	1324 A Street	GeoTracker (Cleanup Program Site)/CA RWQCB & DTSC EnviroStor (State Response)/DTSC	SL205753036 34510082	Lead, TPH-Diesel, TPH-Motor Oil, 1,2 Dichloroethane (Soils, GW)	See text for further information.
SIMS Metal	130 North 12 th Street	GeoTracker (Cleanup Program Site)/DTSC & CA RWQCB	T10000000891	Copper, lead, PCBs, PAHs, waste oil/motor/hydraulic/lubricating (GW other than drinking water) (Soil)	See text for further information.
Matheson FASR Freight	455 Bannon Street	GeoTracker (LUST cleanup site)/Sac County LOP & CA RWQCB	T0606701060	Diesel (Soil)	Ongoing remedial actions
Schetter Electric	471 Bannon	GeoTracker (LUST cleanup	T0606797784	Gasoline (affected media under investigation)	Ongoing remedial

Table 5.4-1

Known Contaminated Sites within the RDSP Area

Business	Address	Database/ Oversight Agency	Identification Number	Contaminant (Soil or Groundwater)	Notes
	Street	site)/ Sac County LOP & CA RWQCB			actions
Shell Station	225 Jibboom Street	GeoTracker (LUST cleanup site)/ Sac County LOP & CA RWQCB	T0606700500	Gasoline (GW)	Ongoing monitoring of wells during remedial actions

Notes:

LUST= Leaking underground storage tank. The Sacramento County Environmental Hazardous Materials Division investigates and approves the remediation programs for the cleanup of LUST sites.

LOP = Local Oversight Program of the State Water Resources Control Board

Sources:

State Water Resources Control Board, GeoTracker database, <http://geotracker.waterboards.ca.gov>, accessed June 1, 2010.

California Department of Toxic Substances Control, EnviroStor database, <http://envirostor.dtsc.ca.gov>, accessed June 1, 2010.

Office of State Printing

This site is currently occupied by the State’s printing office, and is contaminated from leaking underground storage tanks (LUST). The tanks leaked solvents or non-petroleum hydrocarbons. The leaks affected the groundwater, through the industrial well on the parcel. It appears that the pumping of the well is pulling the contaminated groundwater plume from the previous railyards. Therefore, although the former onsite USTs are a source of the contaminated groundwater, they may not be the most significant source, as the contamination appears to be largely from the former Railyards site. According to information in the GeoTracker database, the groundwater will not meet relevant water quality objectives before the beneficial use of the groundwater is needed.³

SP- Purity Oil

A portion of the parcel was leased for use as a waste oil reprocessing facility from 1966 to 1978. The eastern portion of the site was formerly occupied by a cement company, and is currently used for transitional cottage housing units for the homeless. The western portion of the site is currently vacant. Soil contaminated with lead and oil has been removed from the parcel. Groundwater monitoring continues. The parcel is currently undergoing investigation for on- and off-site volatile organic compounds in groundwater. Land use restrictions were recorded for the site, which prohibit activities that disturb the remedy and monitoring systems, extract groundwater, or extract oil or gas without approval. Notification is required prior to changes in land use.⁴

³ *State Water Resources Control Board, GeoTracker database, http://geotracker.waterboards.ca.gov/profile_report.asp, accessed June 1, 2010.*

⁴ *State Water Resources Control Board, GeoTracker database, http://geotracker.waterboards.ca.gov/profile_report.asp, accessed June 1, 2010.*

SIMS Metal

Recycling operations have occurred at this location since at least the early 1950s. Scrap metal, including automobiles and appliances are sorted, cut, flattened or compacted, and transported either off-site for further processing or for sale to steel mills. The USEPA deferred the site to the State for possible further assessment or cleanup of the site under State law.⁵

Leaking Underground Storage Tanks (LUST)

Leaking underground storage tanks are one of the greatest environmental concerns of the past several decades. Extensive federal and State legislation address LUSTs, including replacement and cleanup. The SWRCB is the designated lead regulatory agency in the development of LUST regulations and policy. The RQOCB maintains a database of LUST sites. Most LUSTs result from gasoline stations, but some industrial or commercial facilities have underground tanks that leak hydrocarbons.

As shown in Table 5.4-1, there are five known LUST sites within the RDSP area.

Sites with Known Contamination Adjacent to the RDSP Area

Closed Landfills

The County of Sacramento Environmental Management Department (EMD) is responsible for regulatory oversight of a solid waste handling and disposal sites and implements the hazardous materials and hazardous waste generator programs. The EMD also maintains a database of toxic sites that are currently being investigated and those in the process of being remediated. In response to the NOP for the proposed RDSP project, the EMD notified the City of previous landfills adjacent to the SP area.

The RDSP area is bordered on the east by a closed landfill, which is composed of five landfills that were located within close proximity to each other. All sites are “pre-regulation waste sites, for which there is limited archival information. Such sites also often contain hazardous substances and burn ash, and should be considered as potential threats to the health and safety. No pollution or nuisance conditions have been confirmed at these sites.⁶ However, the California Integrated Waste Management Board indicated that development occurring within the proposed RDSP adjacent to the closed landfills’ “footprints” has the potential to create a pathway for volatile landfill gas (LFG) to migrate and collect in low-lying pockets of the RDSP area and within enclosures, such as buildings, truck cabs, and open-ended pipes.⁷

Methane in LFG has the potential to concentrate within pockets and enclosures with the explosive range of 5-to 15-percent methane in the air. Methane at these concentrations may not be detectable by small because methane alone has no odor. Because the landfills do contain some organic materials that can decompose and generate LFG, especially the organic wastes that are saturated with water due to the landfills’ proximity to the American River and the underlying groundwater.⁸

⁵ State Water Resources Control Board, GeoTracker database, http://geotracker.waterboards.ca.gov/profile_report.asp, accessed June 1, 2010.

⁶ John Loane, Integrated Waste Management Specialist, California Integrated Waste Management Board, personal communication, June 26, 2009.

⁷ John Loane, Integrated Waste Management Specialist, California Integrated Waste Management Board, personal communication, June 26, 2009.

⁸ John Loane, Integrated Waste Management Specialist, California Integrated Waste Management Board, personal communication, June 26, 2009.

Former Railyards

To the south of the RDSP area are the parcels that comprise the site of a former railyard for the Union Pacific Railroad. The site was used by the railroad as their principal locomotive and maintenance facility, among other functions. In addition, many different industrial operations occurred on the site over its history. Due to the release of industrial chemicals to soil and groundwater, the site is listed as a State Superfund Site. Also, the Railyards site is included on the State Hazardous Waste and Substances List (“Cortese List”). The site is currently undergoing remediation of the soil and groundwater contamination, with oversight by DTSC.

Groundwater collected from test wells in the former railyards area, south of the RDSP area, is contaminated with volatile organic compounds, some petroleum hydrocarbons, antimony, lead, molybdenum, and nickel.⁹ The detections of VOCs have been sporadic and some samples found concentrations exceeding the maximum contaminant levels (MCL).¹⁰ Low levels of hydrocarbons have been detected; however, there are no apparent trends for the detections.¹¹ The metals are consistently found and it is believed that these metals are naturally occurring. The detected concentrations of metals are less than their respective MCLs.¹²

Hazards to humans presented by contaminated soils are due to contact with the soils, either directly or indirectly, (e.g. through dust). For the purposes of this EIR, it is assumed that the toxic soils in the railyards area adjacent to the RDSP site will be remediated through the remediation efforts currently underway as a previously approved project. A secondary levee separates the RDSP area from the former railyards area from just about 5th Street to 12th Street. From 12th Street to the eastern boundary of the RDSP area, railroad tracks separate the two areas. Because of these physical separations, it is not anticipated that people in the RDSP area would come into direct contact with the contaminated soils to the south. For this same reason, it is not anticipated that stormwater runoff would result in transference of contaminated soils to the RDSP area. The potential for contaminated airborne soils to be transported to the Proposed Project area was addressed and mitigated in the various remediation plans. Once the remediation of the former railyards site is complete, this would no longer be an issue for the RDSP area.

Database Results

Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

CERCLIS is a database used by the U.S. Environmental Protection Agency (EPA) to track activities conducted under its Superfund program. Specific information is tracked for each individual site.

Although there are three sites within the RDSP area that are on the list, the former Jibboom Junkyard and La Quinta Inn on Jibboom Street and SIMS Metals site on 12th Street, these sites are not on the National Priorities List.¹³

⁹ ERM-West, Inc., *Report of Waste Discharge Lagoon Study Area, Northwest Corner, Sacramento Rail Yard*, December 2004, Page 7-6.

¹⁰ ERM-West, Inc., *Report of Waste Discharge Lagoon Study Area, Northwest Corner, Sacramento Rail Yard*, December 2004, Page 2-20.

¹¹ ERM-West, Inc., *Report of Waste Discharge Lagoon Study Area, Northwest Corner, Sacramento Rail Yard*, December 2004, Page 2-20.

¹² ERM-West, Inc., *Report of Waste Discharge Lagoon Study Area, Northwest Corner, Sacramento Rail Yard*, December 2004, Page 2-20.

¹³ US EPA, CERCLIS, Search Superfund Site Information, <http://cfpub.epa.gov/superfund/cursites/srchrlist.cfm>, accessed June 2, 2010.

DTSC EnviroStar Database

The DTSC maintains a database of information on properties in the State where hazardous substances have been released, or where the potential for a release exists. Summary information about the history of cleanup activities, contaminants of concern, and scheduled cleanup activities is provided. The database also includes properties that are remediated and certified by the DTSC.

This database is one of the lists that comprise the Cortese List, a list of hazardous materials sites compiled pursuant to Government Code Section 65692.5.

According to the “Cortese List”, there are no parcels within the RDSP area that have Cease and Desist Orders or Cleanup and Abatement Orders.¹⁴

According to the Department of Toxic Substances Control “Envirostar” database, there are no hazardous waste sites within the RDSP boundary.¹⁵ This database lists properties regulated by DTSC where extensive investigation and/or cleanup actions are planned or have been completed at permitted facilities and cleanup sites.

There are no parcels within the RDSP area with a hazardous waste operating permit.¹⁶ The permit is required to store, treat, or dispose of hazardous wastes.

Regulatory Context

The term hazardous substance refers to both hazardous materials and hazardous wastes. For the purposes of this EIR, a “hazardous material” is defined as provided in California Health and Safety Code, Section 25501:

Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.

The California Environmental Protection Agency, Department of Toxic Substances Control (CAL-EPA, DTSC) defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

[...] its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

The following regulations related to hazards would be applicable to the Proposed Project, during construction and/or implementation of development in accordance with the RDSP.

¹⁴ Department of Toxic Substances Control, Envirostar, *Hazardous Waste and Substances Site List*, Cortese List, accessed March 28, 2010.

¹⁵ Department of Toxic Substances Control, Envirostar, *Hazardous Waste and Substances Site List*, accessed March 28, 2010.

¹⁶ Department of Toxic Substances Control, Envirostar, *Permitted Facilities*, accessed March 28, 2010.

Federal

Several federal agencies regulate hazards and hazardous materials, including the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT). Applicable federal regulations are primarily contained in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR).

Federal EPA laws that would govern the use, storage, and disposal of hazardous materials in the proposed RDSP project include the following:

- Resources Conservation and Recovery Act (RCRA) - hazardous waste management;
- Hazardous and Solid Waste Amendments Act (HSWA) - hazardous waste management;
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - cleanup of contamination;
- Superfund Amendments and Reauthorization Act (SARA) - cleanup of contamination;
- Emergency Planning and Community Right-to-Know (SARA Title III) – business inventories and emergency response planning;
- Toxic Substances Control Act (TSCA) – tracks and screens industrial chemicals.

Title 29, Part 1910 of the CFR describes the Hazard Communication Standard, which requires that workers be informed of the hazards associated with the materials they handle. Training in chemical work practices must include methods in the safe handling of hazardous substances, use of emergency response equipment, and an explanation of the building emergency response plan and procedures.

The U.S. DOT developed regulations in Titles 10 and 49 of the CFR pertaining to the transport of hazardous substances and hazardous wastes by all modes of transportation, including rail.

Federal law covers a number of different activities involving asbestos, including demolition and renovation of structures (40 CFR, Section 61.145).

State

Department of Toxic Substances Control (DTSC)

The U.S. EPA authorized the DTSC to enforce hazardous waste laws and regulations in California. The DTSC has primary regulatory responsibility for hazardous waste management and cleanup. The DTSC also regulates hazardous waste under the authority of the federal Resource Conservation Act (RCRA) and the California Health and Safety code. Waste generators must ensure that their wastes are disposed of properly and legal requirements dictate the disposal requirements for many waste streams.

California Environmental Protection Agency (Cal/EPA)

The California Environmental Protection Agency (Cal/EPA) and the California Office of Emergency Services (OES) regulate the use of hazardous materials in the State.

Within Cal/EPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup. The DTSC can delegate enforcement of regulation of the generation, transport, and disposal of hazardous materials to local jurisdictions that enter into agreements with DTSC under the authority of the Hazardous Waste Control Law.

Hazards and Hazardous Materials

The management of hazardous materials is governed by the “Unified Hazardous Waste and Hazardous Materials Management Regulatory Program” (Unified Program) adopted by the Cal/EPA. The program is composed of six elements which address hazardous waste generation and on-site treatment, underground storage tanks, above-ground storage tanks, hazardous material release response plans and inventories, risk management and prevention program, and Uniform Fire Code hazardous materials management plans and inventories. The Sacramento County Environmental Management Department serves in this role for Sacramento County, also referred to as the Certified Unified Program Agency (CUPA). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction.

California’s Hazardous Materials Release Response Plans and Inventory Law, sometimes called the “Business Plan Act,” aims to minimize the potential for accidents involving hazardous materials and to ensure an appropriate response to hazardous materials emergencies. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored on site, to prepare an emergency response plan, and to train employees to use the materials safely.

Titles 8, 22, and 26 of the California Code of Regulations (CCR)

State regulations applicable to hazardous materials are contained in and pertain to hazardous materials and the management of hazardous materials. Title 8 contains Construction Safety Orders pertaining to hazardous materials, including, but not limited to, lead.

Under the California Accidental Release Program (Cal ARP), certain businesses handling larger quantities of certain regulated substances are required to meet regulations to prevent accidental releases of the substances that might harm the surrounding environment and community.

Cal OSHA is responsible for developing and enforcing workplace standards and assuring worker safety in the handling and use of hazardous materials. These regulations also apply to workers installing or construction facilities and structures.

One such material is asbestos-containing material (ACM) and lead-based paint which are regulated as a potential worker safety hazard under the authority of OSHA. Construction Safety Orders 1529 and 1523.1 from Title 8 of the CCR addresses ACM and the Department of Housing and Urban Development for the guidelines related to exposure to lead-based paint.

Uniform Fire Code

Many hazardous waste generators are required to prepare Hazardous Waste Minimization Plans pursuant to the California Hazardous Waste Source Reduction and Management Review Act. All hazardous waste generators must certify that, at a minimum, they make a good faith effort to minimize their waste and to select the best waste management method available.

California Accidental Release Prevention Program (CalARP)

The CalARP program (CCR Title 19, Division 2, Chapter 4.5) covers businesses that store or handle more than a certain volume of specific regulated substances at their facilities. The list of regulated substances is found in Article 8, Section 2770.5 of the CalARP program regulations.

The California State Waterboard regulates Leaking Underground Fuel Tank cleanup sites. Data is obtained from GeoTracker <http://www.geotracker.waterboards.ca.gov/>. A LUFT site is an undergoing cleanup due to an unauthorized release from an UST system. An underground storage tank system (UST) is a tank and any

underground piping connected to the tank that has at least 10 percent of its combined volume underground. UST regulations apply only to underground tanks and piping storing either petroleum or certain hazardous substances.

The California State Waterboard regulates Spills, Leaks, Investigation, and Cleanups sites. Data is obtained from GeoTracker <http://www.geotracker.waterboards.ca.gov/>. The SLIC program investigates and regulates non-permitted discharges.

Local

Sacramento County Environmental Management Department (SCMED)

Hazardous waste laws and regulations are enforced locally by Sacramento County Environmental Management Department (SCMED). As the CUPA, SCMED monitors the proper use, storage, and clean up of hazardous materials, and also monitors groundwater wells, the removal of leaking underground storage tanks (LUSTs), and the issuance of permits for the collection, transport, use, or disposal of refuse.

SCMED requires that businesses that store, handle, and use reportable quantities of hazardous materials, generate any amount of hazardous waste, or have a LUST complete a Hazardous Materials Plan (HMP) and obtain relevant permits. The HMPs are normally updated when there is a substantial change in operations.

SMAQMD Rule 902

If it is necessary to disturb the asbestos as part of a renovation, remodel, repair or demolition of a structure, Cal OSHA requires a licensed asbestos abatement contractor be used to remove the asbestos-containing material. There are specific disposal requirements in Rule 902 for friable asbestos-containing material, including disposal at a licensed landfill. If the material is non-friable asbestos, any landfill willing to accept asbestos-containing material may be used to dispose of the material.

Sacramento City Code Section 8.64.040

The City of Sacramento adopted a hazardous materials disclosure code requiring handlers of hazardous materials to file a disclosure form within fifteen (15) days of a significant change to the handling, use, and/or location of hazardous materials.

City of Sacramento 2030 General Plan Policies

The following General Plan policies would apply to developments within the proposed RDSP area.

- **PHS 3.1.1 Investigate Sites for Contamination.** The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.

- **PHS 3.1.2 Hazardous Material Contamination Management Plan.** The City shall require that property owners of known contaminated sites work with Sacramento County, the State, and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk. (RDR)

- **PHS 3.1.5 Clean Industries.** The City shall strive to maintain existing clean industries in the city and discourage the expansion of businesses, with the exception of health care and related medical facilities that require on-site treatment of hazardous industrial waste.

Central City Community Plan

There are no policies specific to the CCCP area that supplement the above citywide General Plan policies.

Impacts and Mitigation Measures

Thresholds of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of new development within the RDSP would result in the following impacts that remain significant after implementation of General Plan policies:

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials or situations;
- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during construction or dewatering activities; or
- Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Methodology

The analysis of impacts associated with hazards and hazardous materials is based on available information of potential hazardous materials as they relate to the development of sites known to be contaminated or sites with previously discovered contamination. The analysis is based on a review of published information and applicable regulatory requirements. Databases from the DTSC and the State Regional Water Quality Control Board were accessed.

The analysis assumes that all development associated with the implementation of the RDSP would comply with all laws, regulations, design standards, and plans.

The significance of impacts is determined using the above Thresholds of Significance.

Hazards and Hazardous Materials

Impact 5.4-1	Construction associated with development in accordance with the RDSP could result in the exposure of people to hazards and hazardous materials during construction activities.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to hazards or hazardous materials during construction activities than area covered by the General Plan (Page 6.6-28, MEIR).		
Applicable GP Policies	PHS 3.1.1 Investigate Sites for Contamination PHS 3.1.2 Hazardous Material Contamination Management Plan	
Mitigation/ policies included in General Plan EIR applicable to project	None	
Project significance after mitigation/ policies included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.4-1(a)	<p><i>Prior to any ground-disturbing or site construction activities associated with redevelopment of a parcel east of 12th Street, a determination shall be made by the County's Environmental Management Department (EMD) as to whether the parcel is within 1,000 feet of the following County Assessor's Parcels. In so, the applicant shall contact the County of Sacramento's Local Enforcement Agency, per Title 27, California Code of Regulations, Section 21190. The applicant shall comply with all requirements of the EMD regarding development and use of the parcel.</i></p> <ul style="list-style-type: none"> • 003-0032-008 • 003-0032-009 • 001-0160-010 • 001-0160-011 • 003-0032-012 • 003-0041-006 • 001-0170-022 • 003-00410-003
	MM 5.4-1(b)	<p><i>Prior to demolition or renovation of structures, the project applicant shall provide written documentation to the City that asbestos-containing materials and/or lead-based paint have been abated and that any remaining hazardous substances and/or waste have been removed in compliance with application State and local laws.</i></p>
Residual Significance	<i>Less than Significant</i>	

As stated above, there are parcels within the RDSP that are listed as contaminated (soil and/or groundwater) by at least one agency. The contaminants can be classified in five basic categories: asbestos, metals, petroleum hydrocarbons, volatile organic compounds (VOC), and semivolatile organic compounds (SVOC), each with its own characteristics of depth and mobility. Exposure to substances that absorb into the soil, such as heavy metals and SVOCs, could occur through inhalation or ingestion of affected soils. Exposure to more mobile chemicals, such as VOCs, could result from inhalation of gases or skin contact. Exposure to hydrocarbons could result by any of these exposure routes.

Hazards and Hazardous Materials

In general, the locations of these release sites are grouped in, and along, specific industrial areas and traffic corridors. These are located along Richards Boulevard, North 12th Street, North B Street, and Jibboom Street.

Construction activities due to development in the RDSP area could expose people to existing contamination. As previously noted, there are areas of known soil and groundwater contamination in the Specific Plan area due to historic uses, both within, and adjacent to, the Proposed Project area (see Table 5.4-1). In addition, development of some parcels in accordance with the RDSP may result in demolition of existing structures. Due to the age of some existing structures it is likely that asbestos containing materials (ACM) and lead-based paint are present.

In addition to demolition, the grading, excavation, and dewatering of parcels for new- or re- development within the RDSP area could also expose construction workers and the public to known, or previously unknown, hazards and/or hazardous materials present in the soil or groundwater.

The City's General Plan Policy PHS 3.1.1 requires investigation of buildings and sites for hazardous materials and/or waste contamination prior to development. The City is then required to ensure that appropriate measures are taken to protect the health and safety of all. In addition, the development and implementation of a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present adverse human health or environmental risk is required by Policy PHS 3.1.2.

Phase 1 Environmental Site Assessments (ESA) or other specialized studies are used to identify the presence or likelihood of soils and groundwater contamination at a specific site. Standards are used to determine an existing release, past release, or a material threat of a release of any hazardous substances or petroleum products onto the surface or into the ground, groundwater, or surface waters of a site. If a Phase 1 ESA finds that hazardous materials may have been released, then a Phase II ESA is usually recommended. The Phase II investigation typically includes collection and analysis of soil and water samples. Based on the result, the Phase II ESA may recommend additional testing, remediation, or other controls to address the contamination.

In the event contaminated groundwater is identified, any discharges to the sewer, or a storm drainage system, if determined to be the appropriate method of disposal, shall be in accordance with the City's Department of Utilities Engineering Services to ensure that contaminants do not enter the environment.

Mitigation Measure 5.4.1(a) requires that applicants considering development of parcels that could be within 1,000 feet of the closed landfill, located east of the RDSP area, contact the County's Environmental Management Department to determine whether the parcel is, in fact, located within 1,000 feet. If so, then the applicant must comply with the regulations of the County during ground disturbing or construction activities that protect human health from the potential contaminants from the closed landfill.

Mitigation Measure 5.4.1(b) requires documentation of the proper abatement of asbestos-containing materials and lead-based paint prior to demolition or renovation of structures.

Compliance with the federal, State, and local regulatory framework (including General Plan policies) would ensure that workers and the public are protected from hazards and hazardous materials during ground disturbing, demolition and/or construction activities within the RDSP boundary. Mitigation Measure (a)(b) enhances this framework by ensuring that project applicants provide written documentation to the City that development in the RDSP area does not expose people to potential hazards due to asbestos, lead-based paint, and the closed landfill. For these reasons, the potential impacts resulting from construction associated with development in accordance with the RDSP resulting in the exposure of people to hazards and hazardous materials during construction activities are **less than significant**.

Mitigation Measure

5.4-1(a)

Prior to any ground-disturbing or site construction activities associated with development of a parcel east of 12th Street, a determination shall be made by the County’s Environmental Management Department (EMD) as to whether the parcel is within 1,000 feet of the following County Assessor’s Parcels. If so, the applicant shall contact the County of Sacramento’s Local Enforcement Agency, per Title 27, California Code of Regulations, Section 21190. The applicant shall comply with all requirements of the EMD regarding development and use of the parcel and provide written confirmation of such to the City of Sacramento.

- 003-0032-008
- 003-0032-009
- 001-0160-010
- 001-0160-011
- 003-0032-012
- 003-0041-006
- 001-0170-022
- 003-00410-003

5.4-1(b)

Prior to demolition or renovation of structures, the project applicant shall provide written documentation to the City that either there is no asbestos-containing materials and/or lead-based paint in the structure or that such materials have been abated and that any remaining hazardous substances and/or waste have been removed in compliance with applicable State and local laws.

Impact 5.4-2	Implementation of the RDSP could result in the exposure of people to hazards and hazardous materials.	
Central City Community Plan Area is not an area of the City that would result in a greater chance of exposure to hazards or hazardous materials during construction activities than the remainder of the Policy Area (Page 6.6-28, MEIR).		
Mitigation/ policies included in General Plan EIR applicable to project	PHS 3.1.5 Clean Industries	
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.4-2	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

As noted in the MEIR for the General Plan, future development in the City would add new uses and population which would be subject to impacts associated with exposure to hazards and hazardous materials. Throughout the life of the proposed RDSP, hazardous materials would be used, transported, and stored.

Most household and general commercial uses, such as allowed by the RDSP, would be minor and not result in a substantial increase in the risk of a hazard or hazardous material incident.

General Plan Policy PHS 3.1.5 encourages clean industries, while discouraging businesses that require on-site treatment of hazardous industrial wastes. In addition, the proposed RDSP does not propose new industrial uses within the RDSP area. As the area redevelops in accordance with the Specific Plan the amount of industrial land uses would decrease.

Workers, visitors, and residents within the RDSP area would be protected from exposure to hazards or hazardous materials due to the required compliance with regulations that offer protection from such materials. The various hazardous waste management plans, land use plan, and emergency plans, along with implementation of the General Plan policies would ensure that all operational impacts associated with the RDSP would be ***less than significant***.

Cumulative Analysis

As noted on Page 6.6-26 of the MEIR for the General Plan, the cumulative context for the analysis of potential impacts due to hazardous materials is generally site specific, rather than cumulative in nature. Because the General Plan took into account all projected future growth and development within the City, the impacts related to hazardous materials also analyzed the cumulative effects as well. Compliance with all federal, State, and local regulations related to hazards and hazardous materials for each development project are required. Additionally, site-specific investigations would be conducted at future development sites to determine the level of remediation or cleanup that is required to comply with regulations.

For this reason, this analysis does not include a separate evaluation of cumulative impacts pertaining to hazardous materials either during construction or implementation of future projects within the RDSP area.

5.5: HYDROLOGY AND WATER QUALITY

Chapter 5.5

Hydrology and Water Quality

This chapter analyzes the potential effects of the proposed RDSP on surface water and groundwater quantity and quality and the potential for either construction or development associated with the RDSP to result in an increased risk to exposure to flooding. Please see Chapter 5.9, Public Utilities, for an analysis of the proposed project's effects to the storm drainage systems.

The Specific Plan areas on the river side of the levees, along the American and Sacramento Rivers, will not be developed as part of the proposed Specific Plan; and therefore, potential flooding impacts due to development in an AE Zone are not analyzed in this EIR.

There are areas of contaminated groundwater lying under portions of the RDSP area. See Chapter 5.4 of this DEIR for an analysis of potential impacts due to contact with contaminated groundwater.

This chapter addresses the potential for regional flooding. Regional flooding is caused by a river system and typically affects large areas. On the other hand, localized flooding refers to flooding caused by failure of a storm drainage system, which typically results in street flooding. See Chapter 5.9 of this DEIR for a discussion of the potential for localized flooding due to storm runoff resulting from the full development of the RDSP area.

Generally, stormwater runoff in the RDSP area flows either into the City's Combined Sewer System (CSS) or to Pump Station 11, which discharges into the American River.

Information for this chapter was obtained from the federal Flood Insurance Rate Maps, *Township 9 Draft Environmental Impact Report (SCH 2006072077)*, and the County of Sacramento, Department of Water Resources website: www.msa2.saccounty.net/dwr.

The MEIR for the 2030 General Plan is hereby incorporated by reference, in particular, Chapter 6.7, Hydrology and Water Quality.

The American River Flood Control District sent the following comments in response to the NOP (see Appendix A): This information is included in this chapter:

- Reminder that the waterside reach is overlain with a federally authorized flood control levee
- Reminder that development on either the water- or land-side of the levee is subject to permits from the Central Valley Flood Protection Board
- Reminder that the American River Flood Control District maintains and operates the flood control easements on both sides of the levee along the American River.

Environmental Setting

Surface Water

The RDSP is located at the confluence of the American and Sacramento Rivers, which form the northern and western project boundaries, respectively.

The water quality in these rivers is influenced by a number of factors, including agricultural drainage, urban runoff, and industrial, municipal, and construction discharges. The reaches of these two rivers adjacent to the Proposed Project area are considered impaired for certain fish consumption and aquatic habitat¹. The American River is listed for toxicity due to mercury (a legacy of gold mining) and the Sacramento River is listed for mercury, diazinon (an insecticide), and unknown toxicity.² Based on current water quality reports, the two rivers are considered excellent supplies for drinking water. The water can be treated to meet the State drinking water standards using conventional treatment processes.³

There are no other surface water features, such as streams or major drainages, within the RDSP area. The two major drainages adjacent to the I5/ Richards Boulevard interchange will be soon be replaced with storm drainage facilities as part of an approved project to improve the interchange.

Stormwater Runoff

Urban stormwater runoff includes stormwater and dry weather flows from a drainage area, such as the RDSP area, that reaches a receiving water body, such as a river, or subsurface. Constituents in urban runoff vary due to rainfall intensity, geographic features, land uses, amount and type of vehicular traffic, and percentage of impervious surfaces. Due to the weather pattern in Sacramento of a six-month dry period, pollutants from vehicles and atmospheric fallout accumulate on impervious surfaces. Precipitation during the early portion of the wet season flushes these pollutants into the stormwater runoff, resulting in elevated pollutant concentrations in the initial runoff.

Approximately 20-percent of the storm drainage from the RDSP area flows to a separated storm drainage system. Stormwater runoff from the RDSP area currently enters a series of stormdrainage pipes and delivered to Sump 11, near the northerly terminus of North 5th Street, from where it is dumped into the American River. This storm drainage system is regulated by a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by the Central Valley Regional Water Quality Control Board (CVRWQCB). The permit requires the use of best management practices to meet the standard of “reducing pollutants in urban runoff to the maximum extent practicable”.

Flooding

The majority of the RDSP area is within a Federal Emergency Management Agency (FEMA)-designated 100-year floodplain. The levees along the American and Sacramento Rivers provide flood protection to the RDSP area. Because the levees along the American and Sacramento Rivers are federally-authorized flood control levees, the land established for the levees and the flood control easements are owned by the State. Two agencies maintain these areas, the American River Flood Control District, for the American River, and the California Central Valley Flood Protection Board (CVFPB), for the Sacramento River. Any activities or encroachments proposed within the flood control area of either levee are subject to permits from the CVFPB.

In addition, protection is provided by the operation of upstream reservoirs and dams, including Folsom Dam and Shasta Dam. The RDSP area is within the dam inundation zone in the event of failure at the Folsom Dam, which is located on the American River, upstream of the Proposed Project area.

¹ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Page 6.7-5.

² City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Table 6.7-1, Page 6.7-6.

³ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Page 6.7-5.

The Sacramento Area Flood Control Agency (SAFCA) was formed in 1989 to address the Sacramento area's vulnerability to catastrophic flooding. The City of Sacramento, the County of Sacramento, the County of Sutter, the American River Flood Control District and Reclamation District 1000 created SAFCA through a Joint Exercise of Powers Agreement to provide the Sacramento region with increased flood protection along the American and Sacramento Rivers.

According to FEMA, there are three flood zone designations in the RDSP area.⁴ The areas on the river-sides of the levees are designated as Zone AE. The remainder of the Specific Plan area is designated as shaded Zone X, with the exception of a portion of the water treatment plant on Bercut Drive and a small area at the north end 18th Street, adjacent to the American River, that are designated as X. The shaded Zone X area is protected from a 100-year flood by levees, while the Zone X areas do not require levees for such protection.

The 100-year flood is the federal minimum standard to which communities regulate their floodplains. The shaded Zone X designation (moderate flood hazard) is given to areas protected by levees from a one-percent (100 year) annual chance of flood. According to FEMA, buildings in this Zone could be flooded, by severe, concentrated rainfall coupled with inadequate local drainage systems. The failure of a local drainage system creates areas of high flood risk within these rate zones. Flood insurance is available in participating communities but is not required by regulation in these zones. Zone X (minimal flood hazard) lands are outside of the 0.2-percent (500 year) annual chance of flooding.

The AE Zone designates floodway areas within the channel of a stream and the adjacent flood-plain areas. Because the RDSP does not propose development on the water-side of the levees, this analysis of potential impacts due to flooding does not include lands within the AE Zone.

An embankment for railroad tracks lies outside of the RDSP; although a portion of it is adjacent to a portion of the southern Specific Plan boundary. This "secondary levee" is not certified by FEMA but provides additional evacuation time to parcels south of it in the event the American River levee fails east of the RDSP area. Because this embankment is further landward than the RDSP area, it would not provide benefits for development within the RDSP area. The secondary levees will be retained into the future. The Railyards Specific Plan development, south of the secondary levee, and adjacent to the proposed RDSP area on the south, was conditioned as part of its project approval to maintain the secondary levee.

The roads that would be extended as part of the Railyards Specific Plan (the extension of 5th and 6th Streets to Richards Boulevard) were analyzed in the Railyards Specific Plan EIR, which determined that the extension of these streets through the embankment would not result in flooding impacts⁵. These road extensions are assumed in the circulation plan for the proposed RDSP. For all these reasons, neither construction nor operation of developments within the RDSP would effect this embankment and no further analysis is required.

Groundwater

Groundwater levels in the Proposed Project area are located at approximately 25 to 45 feet below the ground surface.⁶ The groundwater flows in a southerly direction.⁷

⁴ FEMA, Flood Insurance Rate Maps, City of Sacramento, California, Panels 180 and 160 of 310, revised December 8, 2008, accessed online at <http://msc.fema.gov/webapp/wcs/stores/servlet> on October 27, 2009.

⁵ City of Sacramento, *Railyards Specific Plan Draft Environmental Impact Report*, August 2007, Page 6.6-23.

⁶ City of Sacramento, *Township 9 Draft Environmental Impact Report (SCH 2006072077)*, Volume 1, February 2007, Page 6.7-4.

⁷ ERM-West, Inc., *Report of Waste Discharge Lagoon Study Area, Northwest Corner, Sacramento Rail Yard*, December 2004, Figures 2-16a and 2-16b.

Groundwater below the Proposed Project area is generally within the secondary drinking water standards for municipal use.⁸ Groundwater in the project area is currently not in use for the public water supply; however, it could be a future source of water to supplement surface water supply for the entire City.

There are active wells within the proposed RDSP boundary that supply drinking water to residents along Bannon Street. These wells will remain in operation until the parcels are redeveloped in accordance with the RDSP. The parcels would then be connected to the public water supply. There is a deep well, approximately 100 to 185 below ground surface, to supply cooling water to the State Printing Plant.⁹ It is assumed that this well will remain in use as long as the Printing Plant is in operation.

Regulatory Context

The following regulations related to hydrology and water quality would be applicable to the Proposed Project, during construction and/or implementation of development in accordance with the RDSP.

Federal

Clean Water Act (CWA)

Several sections of the CWA regulate impacts to Water of the United States, which includes the Sacramento River. Because the American River flows into the Sacramento River, the CWA also regulates impacts to the American River.

Section 401 of the CWA requires that any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into navigable waters, provide a water quality certification. Water quality certifications require the consideration of water quality when dredging or placement of fill materials. In California, such certifications are issued by the regional water quality control boards. The State Water Resources Control Board (SWRCB) issues both general and individual permits for discharges to surface waters, including both point-source and non-point-source discharges. The Phase 1 NPDES Storm Water Program is applicable to cities with populations larger than 100,000. The City is covered by a MS4 General Permit for discharges of storm water from the public separate storm drainage system.

Section 402 of the CWA prohibits the discharge of pollutants to navigable waters from a point source unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Each NPDES permit for point discharges contains limits of allowable concentrations of pollutants. The goal of permits for non-point discharges (such as storm water) is to improve the quality of storm water that is discharged to receiving waters through the use of Best Management Practices.

Section 408 regulates the use of, or alteration of levees or other improvements along rivers, unless otherwise permitted by the US Army Corps (Corps) through State and local agencies.

⁸ City of Sacramento, *Township 9 Draft Environmental Impact Report (SCH 2006072077)*, Volume 1, February 2007, Page 6.7-4.

⁹ ERM-West, Inc., *Report of Waste Discharge Lagoon Study Area, Northwest Corner, Sacramento Rail Yard*, December 2004, Page 2-14.

Title 33 of the Code of Federal Regulations, Section 208.10

This section of the Code of Federal Regulations addresses the protection, maintenance, and operation of federal flood protection structures and facilities and applies to the levees within the RDSP area. The regulation requires maintenance of the levees to obtain the maximum benefit, requires that any improvements that would affect levees to obtain permission from the Corps, and requires maintenance of federal flood protection structures other than levees.

Title 44 of the Code of Federal Regulations, Part 60

This part of the Code contains the regulations governing development in a floodplain. The Federal Emergency Management Agency (FEMA) establishes flood zones and boundaries based on information from the Corps. The maps distributed by FEMA identify the locations of special flood hazard areas, including the 100-year floodplain.

State

Porter-Cologne Water Quality Control Act

This act is the State's statutory authority for the protection of water quality and establishes the obligations of the SWRCB and regional water quality control boards under the CWA to adopt water quality control plans and basin plans.

The SWRCB established water quality standards, as required by the federal Clean Water Act and the Porter-Cologne Water Quality Control Act. The Central Valley Regional Water Quality Control Board (CVRWQCB) has jurisdiction over the City. The Water Boards (the SWRCB and the CVRWQCB) regulate wastewater discharges to both surface water (rivers) and to groundwater (via land).

Water quality objectives for the Sacramento River are specified in a Water Quality Control Plan prepared by the CVRWQCB. The Plan establishes water quality objectives and implementation programs to meet the objectives. All discharges to surface or groundwater are subject to the Plan requirements.

The Water Boards also regulate storm water discharges from construction, industrial, and municipal activities; and the alteration of any federal water body (Sacramento River); and several other activities with practices that could degrade water quality.

The CWA requires permits for municipal stormwater drainages. The City has coverage under a General Permit. This permit requires that controls be implemented to reduce the discharge of pollutants in stormwater discharges to the maximum extent practicable, including management practices, control techniques and systems, and design and engineering methods. As part of permit compliance, the City prepared a Stormwater Quality Improvement Plan (SQIP), which outlines the requirements for municipal operations, industrial and commercial businesses, illegal discharges, construction sites, and planning and land development. These requirements include multiple measures to control pollutants in stormwater discharge. Development within the RDSP area would be required to comply with the SQIP.

Water quality objectives for the Sacramento River are specified in the Water Quality Control Plan for in a Basin Plan prepared by the CVRWQCB in compliance with the federal CWA and the California Water Code. The Basin Plan contains water quality standards and objectives for rivers and tributaries (in this case, the American River).

The Porter-Cologne Act also requires that waste dischargers notify the RWQCB of the activity by filing Reports of Waste Discharge Requirements and authorizes the SWRCB and RWQCB to issue and enforce waste discharge requirements, NPDES permits, and Section 401 water quality certifications.

While small amounts of construction-related dewatering are covered under the General Construction Permit, the CVRWQCB also adopted a General Order for Dewatering and Other Low Threat Discharges to Surface Waters (General Dewatering Permit). This permit applies to various categories of dewatering activities and would apply to development within the RDSP area if construction required dewatering in greater quantities than what is allowed by the General Construction Permit and the effluent is discharged to surface waters, such as the American or Sacramento River. The General Dewatering Permit contains waste discharge limitations and prohibitions similar to the General Construction Permit. To obtain coverage, the applicant must submit a Pollution Prevention, Monitoring, and Reporting Program, which must include a description of the discharge location, discharge characteristics, primary pollutants, receiving water, treatment systems, spill prevention plans, and other measures necessary to comply with discharge limits.

The CVRWQCB adopted a general National Pollutant Discharge Elimination system (NPDES) permit for short-term discharges of small volumes of waste water from certain construction-related activities. Discharges may be covered by the permit if they are (1) either four months or less in duration, or (2) the average dry water discharge does not exceed 0.25 million gallons per day.

To minimize the potential effects of construction runoff on receiving water quality, the State requires that any construction activity of one acre or more must obtain a General Construction Activity Stormwater Permit (General Permit). The Permit requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that requires implementation of Best Management Practices (BMPs) to reduce construction effects on receiving water quality through erosion and sediment control measures and reduction/elimination of non-stormwater discharges.

State Reclamation Board

A State Reclamation Board permit is required for any project that may have an effect on the flood control functions of levees. An adopted plan of flood control includes the natural stream channel and overbank area at design flood levels or a 100-year flood elevation, areas between and including levees, and up to 10 feet landward from the landside toe of a federal flood control project levee.

Central Valley Flood Protection Board

This Board provides flood control planning and facilities to control flooding along the Sacramento River and its tributaries in cooperation with the U.S. Army Corps of Engineers (Corps). In addition to the Corps, the Board cooperates with various agencies of the federal, State, and local governments in establishing, planning, constructing, operating, and maintaining flood control works. The Board has regulatory authority to issue permits for encroachments in order to maintain the integrity of the existing flood control system and designated floodways.

Local

Sacramento Flood Control Agency (SAFCA)

The City, County, Sutter County, American River Flood Control District and Reclamation District 1000 created SAFCA to provide the region with increased flood protection along the two rivers. The mission is to provide the region with at least a 100-year level of flood protection, while seeking a 200-year or greater level of protection over time.

Stormwater Quality Improvement Program (SQIP)

The City operates under a NPDES permit (NPDES No. CAS082597) for stormwater municipal discharges to surface waters. The permit requires that the City impose water quality protection measures for all development projects. The permit prohibits discharges from causing violations or water quality standards or result in conditions that create water quality impairment in receiving waters. A key component of the NPDES permit is the implementation of the SQIP. The SQIP consists of elements such as control of commercial/industrial discharges, control of stormwater during construction, and control of post-construction stormwater for new development and redevelopment of parcels.

In addition, the two following sections of the City Code provide additional regulation and guidance to prevent degradation of water quality.

Stormwater Management and Control (City Code Section 13.16)

This section of the Code regulates non-stormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable. Non-stormwater discharges are prohibited except where the discharge is regulated under a NPDES permit.

Post-construction nonstormwater and pollutant discharges resulting from new development are minimized and controlled using source and/or treatment control measures to remove and prevent pollution in stormwater.

Grading, Erosion, and Sediment Control (City Code Section 15.88)

This section regulates land disturbances, soil storage, pollution, and erosion and sedimentation resulting from construction activities within the City. Grading approval must be received from the Department of Utilities before construction. All projects are required to prepare erosion and sediment control plans which apply during and post construction. The plans include erosion control measures such as straw mulch, sediment controls such as fiber rolls, inlet protection, and housekeeping practices such as concrete management and spill prevention.

Resolution No. 92-439 of the Sacramento City Council

This resolution regulates groundwater discharges to the CSS or a separated sewer system. The Department of Utilities is responsible for the permitting of short-term discharges or approval of a Memorandum of Understanding for long-term discharges. Groundwater discharges to a sewer system are defined as discharges from construction dewatering, foundation dewatering, treated or untreated contaminated groundwater cleanup, and uncontaminated groundwater.

All groundwater discharges to the sewer must be granted a SRCSO discharge permit. If the discharge contains excessive contaminants, CVRWQCB approval is also required.

City of Sacramento 2030 General Plan

The following General Plan policies would apply to developments within the proposed RDSP area.

ER 1.1.4 New Development. The City shall require new development to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, best management practices (BMPs), and Low Impact Development (LID), and hydromodification strategies consistent with the City’s NPDES Permit.

ER 1.1.5 No Net Increase. The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.

ER 1.1.6 Post-Development Runoff. The City shall impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.

ER 1.1.7 Construction Site Impacts. The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City’s Erosion and Sediment Control Ordinance and Stormwater Management and Discharge Control Ordinance.

U.4.1.4 Watershed Drainage Plans. The City shall require developers to prepare watershed drainage plans for proposed developments that define the needed drainage improvements per City standards, estimate construction costs for these improvements, and comply with the City’s National Pollutant Discharge Elimination System (NPDES) permit.

U 4.1.5 New Development. The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures to prevent on- or off-site flooding.

EC 2.1.6 New Development. The City shall require evaluation of potential flood hazards prior to approval of development projects.

EC 2.1.7 Levee Setbacks for New Development. The City shall prohibit new development within a minimum distance of 50 feet from the landside toe of levees. Development may encroach within this 50-foot area provided that “oversized” levee improvements are made to the standard levee section consistent with local, regional, State, and federal standards.

EC 2.1.9 Oversized Levees for Infill Development. The City shall support the construction of “oversized” levees that can increase levee stability and improve site characteristics, recreation, and river access where infill development and redevelopment occurs next to a levee.

River District Specific Plan Goals and Policies

Goal I 1: Reduce water consumption and wastewater flows by implementing conservation techniques such as those described in the Water Forum agreement.

Policy a: Encourage the installation of techniques such as bio-swales, permeable pavement and greywater systems to reduce stormwater runoff.

Impacts and Mitigation Measures

Thresholds of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of new development within the RDSP would result in the following impact that remains significant after implementation of General Plan policies:

- substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the Specific Plan; or
- substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

Methodology

The analyses of the impacts related to hydrology and water quality are qualitative, while the analyses of cumulative impacts use qualitative information from the MEIR. The analysis assumes that all development within the RDSP complies with the applicable laws, regulations, design standards, and approved project plans. Impacts on surface and groundwater quality were analyzed by reviewing existing groundwater depth and surface water quality information from the City's General Plan and previous environmental documents within in, and adjacent to, the RDSP area. The analyses evaluate the potential sources of water quality pollutants based on the proposed types of land uses in the RDSP area.

As noted in the Environmental Setting, some parcels currently use groundwater for residential and industrial uses, and are assumed to continue until the parcels are redeveloped as part of RDSP. Parcels developed within the RDSP would be required to connect to the public water supply system. For these reasons, the use of groundwater is not analyzed in this EIR.

Localized flooding refers to flooding caused by failure of a storm drainage system and typically results in street flooding. Regional flooding refers to flooding by a river and typically affects much larger areas. Both types of potential floods are analyzed qualitatively, based on information from FEMA and the MEIR for the 2030 General Plan.

The significance of impacts is determined using the above Thresholds of Significance.

Impact 5.5-1	Development of the RDSP would result in construction activities that could degrade water quality by increasing the amount of sediments and other contaminants entering rivers.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to water quality than area covered by the General Plan (Page 3-CC-8)		
Mitigation/ policies included in General Plan EIR applicable to project	ER 1.1.7 Construction Site Impacts	
Project significance after mitigation/ polices included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.5-1	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

Construction of the backbone infrastructure and development of the Specific Plan area in accordance with the proposed RDSP would result in the disturbance of soils, which could result in sediments and other contaminants entering surface waters. As previously noted, no development on the water sides of the levees along the two rivers is proposed. In addition, there are no streams, water courses, or major drainages within the RDSP area. For these reasons, it is anticipated that ground-disturbing activities associated with development within the RDSP area would not result in direct discharges to surface waters (the two rivers adjoining the proposed project area), but rather would enter the rivers through disposal in the storm drainage system. The system that serves the RDSP area discharges into the American River at Sump 11

However, construction associated with development of the RDSP could result in indirect discharges to the surface waters. The earth-disturbing activities such as trenching, excavation, grading, and placement of fill at the site could expose soils to wind and water erosion. Spills or leaks from heavy equipment or machinery, construction staging areas, or building sites could occur. These contaminants could reach either the American or Sacramento River due to development of parcels adjacent to the rivers (for wind erosion) or due to the contaminants entering the storm drainage system that flows to Sump 11. Stormwater flows from Sump 11 are pumped to the American River, which ultimately flows to the Sacramento River.

Dewatering during construction is sometimes necessary to keep trenches or excavations free of standing water where groundwater levels tend to be shallow. Because the proposed RDSP would allow buildings up to 17 stories high, the excavations for the foundations could require dewatering, as could excavations for the utilities. Under certain circumstances, clean or relatively pollutant-free water that poses little or no threat to water quality may be discharged directly to a stormdrainage system that flows to the rivers. However, dewatering can result in water contaminated by flowing over soils with construction contaminants reaching the storm drainage system, and ultimately the American and Sacramento Rivers. A general NPDES permit, adopted by the CVRWQCB, allows short-term discharges of small volumes of water from certain construction-related activities, such as construction dewatering. Discharges may be covered by this permit provided they are either (1) four months or less in duration or (2) the average dry weather discharge does not exceed 0.25 million gallons per day. The NPDES permit for short-term discharges of small volumes of waste water would protect receiving water quality due to any dewatering activities. The permit specifies the receiving water limitations, discharge prohibitions, and standards for testing, monitoring, and reporting.

Long-term discharges of groundwater, if necessary, would be approved by the City through a Memorandum of Understanding process. The MOU would specify the type of groundwater discharge, flow rates, system

design, and an effluent monitoring plan to ensure contaminant levels are in compliance with applicable standards.

As noted on Page 6.7-15 of the MEIR for the 2030 General Plan, the State requires that any construction activity of one acre or more must obtain a General Permit to minimize the potential effects of construction runoff on receiving water quality. For development that would disturb one acre or more, the City would also require contractors to obtain coverage under the NPDES General Construction Permit and include erosion and sediment control plans. BMPs could include a wide variety of measures taken to reduce or eliminate pollutants in stormwater. Typical construction BMPs in SWPPPs include temporary mulching, seeding or other soil stabilization measures; storage of construction materials and equipment to ensure spills or leaks cannot enter the storm drainage system or surface water; development of a spill prevention and cleanup plan; installation of sediment control devices to reduce or eliminate sediment or other pollutants from entering the City’s drainage system or the two rivers.

The SWRCB regulates storm water discharges from construction activities with practices that could degrade water quality in the Sacramento River. Because the American River flows into the Sacramento River, construction activities that could impact water quality in the American River would also be subject to these regulations.

General Plan Policy ER 1.1.7, Construction Site Impacts, requires minimization of disturbances to natural water bodies and natural drainage systems caused by development and requires implementation of measures to protect areas from erosion and sediment loss, and requires compliance by construction contractors with the City’s Erosion and Sediment Control Ordinance and Stormwater Management and Discharge Control Ordinance.

The protection of surface waters from sediments and other contaminants is regulated by federal, State, and local regulations. Construction activities within the RDSP area would be required to comply with these regulations, which would ensure protection of the two rivers adjoining the Specific Plan area. No mitigation is necessary because compliance with the regulations would ensure protection. For these reasons, the impacts to surface waters due to construction within the RDSP area would be ***less than significant***.

Mitigation Measure

None required.

Impact 5.5-2	Development of the RDSP could generate new sources of polluted runoff that could violate water quality standards.	
	Central City Community Plan Area is not an area of the City that would new sources of polluted runoff than area covered by the General Plan (Page 3-CC-8)	
Mitigation/ policies included in General Plan EIR applicable to project	ER 1.1.4 New Development ER 1.1.6 Post-Development Runoff U.4.1.4 Watershed Drainage Plans U 4.1.5 New Development	
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.5-2	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

Although the majority of the RDSP area is currently developed, the proposed full buildout of the Specific Plan area could result in changes in existing absorption rates, drainage patterns, or the rate/quantity of surface runoff. As an area becomes more developed, the natural vegetated pervious ground cover would be converted to impervious surfaces such as streets, rooftops, and parking lots that increase runoff rates and could contain contaminants. However, the backbone utilities to be installed as part of the development of the proposed RDSP would include a system of detention basins that would reduce peak flows that currently flow to Sump 11 and, the American River. These basins would also detain stormwater resulting from new development, with the ultimate result of no increase in the amount of flows to the rivers.

The problem with storm water isn't that it's inherently contaminated; rather, it can mix with contaminants as it flows across surfaces. The runoff from urban development typically contains oils, grease, fuels, antifreeze, byproducts of combustion, as well as nutrients from fertilizers, sediments, pesticides, herbicides, and other pollutants. Residential activities often involve the use of chemicals, such as fertilizers, herbicides, and pesticides that can enter stormwater runoff. In addition, vehicle operation introduces oil and other petroleum-based products, surfactants from cleaners and waxes into residential runoff. Commercial and industrial uses also contribute to contaminant loads through their normal courses of operation. The use of conventional landscaping chemicals to maintain parks and open space can enter stormwater runoff.

In addition to the previously mentioned operational surface water quality pollutants, roads and drainage improvements (such as culverts and alteration of natural drainage flow conditions) could alter normal and stormwater drainage flows in the rivers, which could alter natural erosion and siltation conditions. This could result in higher sedimentation rates.

If this runoff enters the American or Sacramento Rivers, either directly, or through the Pump 111 storm drainage system or the CCS, water quality could be affected by increased sediment and/or contamination.

As with construction discharges, post-construction runoff is highly regulated by federal, State, and local regulations. Projects within the RDSP area would be required to comply these regulations. The measures, which reduce or eliminate post-construction-related discharges that could affect water quality range from source controls, such as

The pollutants likely to occur in the stormwater runoff from the RDSP area could include the target pollutants identified by the City's SQIP such as pesticides and metals, among other urban pollutants.

Storm drainage from approximately 80-percent of the RDSP area would flow to Pump 11, from where it would be pumped to the American River. The NPDES permit issued by the CVRWQCB regulates the separated storm drainage system. The permit requires the use of best management practices intended to reduce pollutants in urban runoff to the maximum extent possible. The backbone storm drainage system proposed for the RDSP area would be consistent with the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*. The SRWQCB prefers Low Impact Development (LID) that uses site controls that promote infiltration of stormwater. Runoff from new streets, in addition to the additional runoff created by widening streets would require treatment prior to entering the stormdrainage system.

In response, Infrastructure Goal I 1, Policy a, of the RDSP encourages the use of techniques such as bio-swales and permeable pavement to reduce stormwater runoff. A bioswale is a landscape element that captures surface water runoff and filters out silt and contaminants before the storm water enters the drainage system or groundwater. Bioswales are proposed as part of the backbone infrastructure installed for the RDSP. The bioswales will be installed on the north side of Richards Boulevard between North 4th Street and 5th Street and between 5th Street and 7th Street.

In addition to these larger bioswales, smaller bioswales would be installed as part of the backbone infrastructure in the medians at the following locations:

- 7th Street from North B Street to Richards Boulevard
- 4th Street
- The proposed pedestrian/bikeway between Dos Rios and 12th Street
- Richards Boulevard from Bercut Drive to North 16th Street
- North B Street from Bannon Street to 16th Street

Permeable pavement allows stormwater to stay separate from pollutants such as motor oil and road sediment that could make their way into the underground water supply. The stormwater soaks through the pavement and eventually filters through the soil.

In addition to these measures to eliminate or reduce the amount of contaminants in stormwater runoff, the proposed backbone infrastructure installed as part of the RDSP would include detention basins. The intent of the basins is to reduce the peak flows to Pump 11 and to reduce/prevent flooding at key locations with the Specific Plan area. A large basin is proposed on the north side of the proposed extension of Bannon Street between North 10th Street and Dos Rios Street. A smaller basin is proposed on the south side of Bannon Street, at the intersection with Sequoia Pacific.

As is currently required with the existing development within the RDSP area, the future development in accordance with the proposed RDSP would be required to meet NPDES and SQIP requirements. Meeting these requirements would include implementation of BMPs (structural and non-structural) that are best suited to reduce to the maximum extent practicable the pollutants of concern.

The City requires developers to submit drainage plans and studies for proposed developments to ensure that necessary and adequate stormdrainage improvements are made part of the project (General Plan Policies U4.1.4 and U4.1.5). General Plan policy ER 1.1.4 require new development to protect the quality of water bodies through site design, source controls, storm water treatment, reduction of runoff, BMPs and other strategies consistent with the City's NPDES permit. In addition to the protection of water quality through methods that reduce the amount of contaminants, policy ER 1.1.6 in the General Plan requires new development to control the volume of stormwater; thereby, reducing the amount of stormwater entering the systems and eventually entering the rivers.

The post-construction operation of development in the proposed project area in accordance with the RDSP would maintain stormwater protection measures through maintenance of existing stormwater facilities, and implementation of the various regulations to meet the City's water quality criteria. All of the measures would help reduce the potential for sediments and pollutants from entering the rivers and/or groundwater and reduce impacts on water quality.

Mitigation Measure

None required.

Impact 5.5-3	Implementation of the RDSP could increase exposure of people and/or property to risk of injury and damage from a 100-year flood.	
Central City Community Plan Area is not an area of the City that would increase exposure to flooding than the area covered by the General Plan (Page 3-CC-8)		
Mitigation/ policies included in General Plan EIR applicable to project	EC 2.1.6 New Development. EC 2.1.7 Levee Setbacks for New Development EC 2.1.9 Oversized Levees for Infill Development	
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.5-3	<i>None Required</i>
Residual Significance	<i>Less than Significant</i>	

As previously noted, the portion of the RDSP area that could be developed is within either the shaded X or X Zone designations of FEMA; therefore, this area is protected from a 100-year flood. Because the existing parcels proposed for development within the RDSP are protected from a 100-year flood and FEMA allows the types of land uses within the flood zones that are proposed by the RDSP; the individual developments within the RDSP area would be protected from regional floods. General Plan Policy EC 2.1.6 requires an evaluation of potential flood hazards prior to approval of development projects.

Development within the RDSP would include parcels adjacent to the levees. Development of parcels adjacent to the levees would be regulated by DWR and Corps and SAFCA to ensure levee stability and safety. Adherence with these regulations would eliminate potential impacts to the physical structures of the levees through design requirements that are specifically designed to protect levee integrity. Development would be subject to numerous permit reviews, inspections, and conditions prior to, during, and after construction adjacent to a levee. In addition, the levees are maintained by the American River Flood Control District and the City.

General Plan Policy EC 2.1.7 prohibits new development within a minimum distance of 50 feet from the landside toe of levees. Development may encroach within this 50-foot area provided that “oversized” levee improvements are made to the standard levee section consistent with local, regional, State, and federal standards. Development adjacent to the levees can place earthen fill against the landside of a portion of an existing levee that gently slopes to meet existing grade, thus “oversizing” the levee. General Plan Policy EC 2.1.9 states that the City shall support the construction of “oversized” levees that can increase levee stability and improve site characteristics where infill development and redevelopment occur next to a levee.

In addition to the General Plan policies that protect the levees, City Code Section 15.88.130 prohibits excavation or removal of any material from, or any other alteration of, any levee adjacent to a river without prior approval of the governmental agency or agencies responsible for the operation and/or maintenance of the levee.

Because levees currently protect the proposed RDSP area from a 100-year flood and development in accordance with the Specific Plan would not be allowed by law to compromise the integrity of the levees, implementation of the RDSP would not increase exposure of people and/or property to risk of injury and damage from a 100-year flood. This impact is determined to be ***less than significant***.

Mitigation Measure

None required.

Cumulative Analysis

The cumulative context for the hydrological and water quality analyses is the Sacramento River watershed and the Sacramento-San Joaquin Delta. The cumulative context for flooding is the downstream areas of the American and Sacramento Rivers.

Impact 5.5-4	Implementation of the RDSP, in addition to other projects in the watershed, could result in the generation of polluted runoff that could violate water quality standards or waste discharge requirements for receiving waters.	
Mitigation for Project	MM 5.5-4	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

As the City and remainder of the watershed area develop in accordance with the various general plans and other land use plans, it is anticipated that storm drainage runoff would increase due to the increase in impervious surfaces. It is also anticipated that the runoff would be contaminated with the usual contaminants found on urbanized surfaces. The construction activities associated with this new development could result in increased sediments in the stormwater runoff.

As with the future developments within the RDSP area, all development within the watershed would be required to meet the federal and State water quality discharge criteria.

The federal CWA regulates water quality to Water of the United States, which includes the Sacramento River. Because the American River flows into the Sacramento River, the Act also applies to discharges to the American River. The Porter-Cologne Water Quality Act is the State’s statutory authority for the protection of water quality and establishes the obligations of the SWRCB and regional water quality control boards under the CWA to adopt water quality control plans and basin plans. The water boards regulate wastewater discharges to both surface water (rivers) and to groundwater (via land). The SWRCB established water quality standards, as required by the federal Clean Water Act and the Porter-Cologne Water Quality Control Act.

Because all development within the watershed, including the proposed RDSP, would be required to comply with the regulations enacted by the federal and State governments to protect surface water and groundwater quality, the combined cumulative impact associated with the project’s incremental effect and the effects of other projects is not significant. For this reason, the cumulative impact is considered ***less than significant***.

Mitigation Measure

None required.

Impact 5.5-5	Implementation of the RDSP, in addition to other projects in the watershed, could increase exposure of people and/or property to a 100-year flood event.	
Mitigation for Project	MM 5.5-5	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

Any increase in flows from the RDSP area to the American and Sacramento Rivers could increase the number of people or structures exposed to a 100-year flood event downstream of the area, when combined with the stormwater flows from other jurisdictions. However, there would be no net increase in stormwater flows from either the RDSP area (see Impact 5.5-2) or from the General Plan area.¹⁰ Therefore, the cumulative upstream development would not result in an increase of flows that could compromise the stability or reduce the effectiveness of the levees.

In addition, although the RDSP could result in development adjacent to the levees, this development would be required to comply with all federal, State, and local regulations and permitting requirements to ensure that the levees are protected. These regulations and permitting requirements would apply to any development adjacent to the levees, both upstream and downstream of the RDSP area.

Because all development including the proposed RDSP, would be required to comply with the regulations enacted by the federal and State governments to protect the levees, the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant. For this reason, the cumulative impact is considered *less than significant*.

Mitigation Measure

None required.

¹⁰ City of Sacramento, 2030 General Plan Master Environmental Impact Report, certified March 2009, Page 6.7-30.

5.6: NOISE AND VIBRATION

Chapter 5.6

Noise and Vibration

The Noise and Vibration chapter of the EIR describes the existing noise environment in the project vicinity, and identifies potential noise and vibration impacts and mitigation measures related to the construction and operation of the proposed River District Specific Plan (RDSP) in contrast to buildout of the 2030 General Plan. The method by which the potential impacts are analyzed is discussed, followed by the identification of potential impacts and the recommended mitigation measures designed to reduce significant impacts to levels that are less-than-significant.

Sources used in the analysis of noise include the *City of Sacramento 2030 General Plan*, the *City of Sacramento 2030 General Plan Master EIR*, the *River District, Architectural and Historical Property Survey Update*, by Historic Environment Consultants, July 2009, and the *Environmental Noise Assessment for the River District Specific Plan Sacramento, CA*, March 23, 2010, prepared by AECOM.

The MEIR for the 2030 General Plan is hereby incorporated by reference, in particular, Chapter 6.8, Noise and Vibration.

No comments regarding noise and/or vibration were received in response to the Notice of Preparation (NOP).

Environmental Setting

Sensitive land uses are generally considered to include those uses where noise and vibration exposure could result in health-related risks to individuals, as well as places where quiet and calm is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additionally, land uses such as parks, historic sites, and recreation areas are also considered sensitive to exterior noise levels. Schools, where low interior noise levels are essential, are also considered noise-sensitive land uses. The majority of noise sensitive land uses within the RDSP Area are residential. Existing residential development is located along Bercut (Bannon) Street and North B Street adjacent to the City water treatment facility, at the southeast corner of Richards Boulevard and Dos Rios Street, the Quinn Cottages and an area located primarily on Basler Street, east of 16th Street, north of Dreher Street and south of Downtown Ford. There is one charter school and three places of worship within the RDSP. There are also seven hotels located along Jibboom Street and Richards Boulevard within the RDSP area, all are near the I-5 and Richards Boulevard interchange.

Noise and vibration sources would vary from location to location, as would the potential for noise and vibration impacts from subarea to subarea within the entire RDSP area.

Sources of Noise

Land uses within the RDSP Area include a range of residential, commercial, institutional, industrial, recreational, and open space areas. Although there are many noise sources within the RDSP Area, the primary noise source is traffic. Noise also occurs from railroads, and various stationary sources as described below. Noise measurement locations and existing noise contours for roadways are shown in Figures 5.6-1 and 5.6-2 respectively.

Ambient Noise

The dominant noise source in the RDSP study area identified during the ambient noise survey was traffic from the local area roadway network. Ambient noise levels in the RDSP Area are influenced by traffic on Interstate 5 (I-5), State Route 160/ 12th Street (SR 160) and major roads such as Richards Boulevard, 16th Street, and North B Street. During the survey, average daytime ambient noise levels ranged from 54.2 dB L_{eq}¹ to 73.9 dB L_{eq}.

Table 5.6-1 Short Term Daytime Summary of Measured Ambient Noise Levels				
Site	Location	Date/Time	Noise Sources	A-Weighted Sound Level (dBA)
				L _{eq}
ST-1	Bercut Drive north of Richards Boulevard	January 15, 2010 1:41-1:56 p.m.	Traffic I-5 (dominant source), aircraft overflights	58.3
ST-2	Jibbom Street south of Richards Boulevard	January 15, 2010 2:00-2:15 p.m.	Traffic I-5 (dominant source)	73.9
ST-3	Bannon Street west of North B Street	January 15, 2010 2:19-2:34 p.m.	Traffic on Bannon Street, Richards Boulevard and I-5 (dominant source)	63.7
ST-4	North B Street west of 7 th Street	January 15, 2010 2:37-52 p.m.	Traffic North B Street (dominant source), I-5, aircraft overflights, back up alarms	64.7
ST-5	7 th Street north of Richards Boulevard	January 15, 2010 2:56-3:11 p.m.	Industrial sources (pump, generator, wench)	57.1
ST-6	5 th Street north of Richards Boulevard	January 15, 2010 3:14-3:29 p.m.	Traffic I-5 (dominant source), Richards Boulevard, Fed Ex parking lot activity (trucks idling, entering and exiting facility, and bay doors opening and closing)	61.1
ST-7	Basler Street east of 16 th Street	January 15, 2010 3:37-3:52 p.m.	Traffic SR 160 (dominant source), public address system, aircraft overflights	54.2
<p><i>Notes:</i> <i>dBA = A-weighted decibels; L_{eq} = equivalent energy noise level;</i> <i>Monitoring locations correspond to those depicted in Figure 5.6-1</i></p> <p><i>Source: AECOM, Environmental Noise Assessment for the River District Specific Plan Sacramento, CA., March 23, 2010</i></p>				

¹ L_{eq} = stands for 'Equivalent Energy Noise Level' and is the constant noise level that would deliver the same acoustic energy to a listener as the actual time-varying noise would deliver over the same exposure time.

The L_{dn}^2 and L_{eq} value taken at the long-term ambient noise measurement location are presented in Table 5.6-22.

Table 5.6-2 Long Term Summary of Measured 24-hour Ambient Noise Levels										
Site	Location	Date	Average Measured Hourly Noise Levels, dBA							
			L _{dn}	Daytime (7 a.m.–10 p.m.)				Nighttime (10 p.m.–7 a.m.)		
								L _{eq}		
LT-A	Corner of Eliza Street and Louise Street, south of SR 160.	January 14, 2010 – January 15, 2010	65.1				56.9			
<i>Notes</i> Monitoring locations correspond to those depicted in Figure 5.6-1. Source: AECOM, Environmental Noise Assessment for the River District Specific Plan Sacramento, CA., March 23, 2010										

Roadway Traffic Noise

Traffic noise is the dominant noise source in the RDSP study area and it is influenced by I-5, SR 160/ 12th Street and major roads such as Richards Boulevard, 16th Street, and North B Street. Tables 5.6-3 and 5.6-4 summarize the modeled traffic noise levels 100 feet from the centerline of each major roadway within the study area. Tables 5.6-3 and 5.6-4 also list distances from the roadway centerlines to the 60 dB, 65 dB, and 70 dB L_{dn} traffic noise contours for existing, Year 2035 traffic scenarios, respectively. The traffic noise modeling results are based on existing average daily traffic (ADT) volumes. It should be noted that the extent to which existing land uses in the project area are affected by existing traffic noise depends on their respective proximity to the roadways and their individual sensitivity to noise. Figure 5.6-2 and 5.6-3 show the traffic noise contours for roadways within the RDSP study area for existing and Year 2035 traffic scenarios, respectively. Traffic noise contours attributable to I-5 are not shown in Figure 5.6-2 and 5.6-3 Because the existing modeled 70 dB L_{dn} traffic noise contour for I-5 extends beyond ambient noise measurement sites ST 1 and ST 3 in Figure 5.6-1 that measured 58.3 dB and 63.7 dB L_{eq} , respectively. As stated above, modeled traffic noise levels do not take into account shielding for intervening building facades; therefore, additional I-5 traffic noise calibrations measurements would be required to accurately illustrate those contours for existing and Year 2035 traffic scenarios.

Aircraft

The California Highway Patrol recently established its patrol headquarters with a helistop within the RDSP. As a result, approximately 50 lift-offs and landings as needed will occur annually.³

² L_{dn} = stands for Day-Night Average Noise Level and is a 24-hour average L_{eq} with a 10 dBA “penalty” added to noise levels during the hours of 10 pm to 7 am to account for increased sensitivity that people tend to have to nighttime noise.

³ California Highway Patrol, Negative Declaration, 2009, <http://www.ceqanet.ca.gov/DocDescription.asp?DocPK=635491> (accessed January 25, 2010)

**Table 5.6-3
Summary of Modeled Levels of Existing Traffic Noise in the Plan Area**

Roadway	Segment		L _{dn} (dB) 100 Feet	Distance (feet) from Roadway Centerline to L _{dn} Contour		
	From	To		70 dB	65 dB	60 dB
Vine Street	10th Street	Richards Boulevard	49.5	1	3	9
Richards Boulevard	Bercut Drive	5th Street	67.9	61	194	614
Richards Boulevard	5th Street	Dos Rios Street	67.4	55	173	546
Richards Boulevard	Dos Rios Street	North 12th Street	66.3	43	135	428
North B Street	Bannon Street	7th Street	53.2	2	7	21
North B Street	7th Street	10th Street	57.1	5	16	51
North B Street	10th Street	12th Street	57.5	6	18	56
North B Street	12th Street	16th Street	57.6	6	18	57
Jibbom Street	Richards Boulevard	the south	60.6	11	36	115
7th Street	Richards Boulevard	Bannon Street	58.7	7	23	74
10th Street	Richards Boulevard	Bannon Street	52.8	2	6	19
Dos Rios Street	Richards Boulevard	North B Street	52.4	2	5	17
12th Street	Richards Boulevard	North B Street	66.1	41	128	406
12th Street	North B Street	the south	65.5	36	113	358
16th Street	North B Street	the south	66.9	49	154	486
16th Street	Richards Boulevard	North B Street	67.1	52	163	516
Interstate 5	I Street	Interstate 80	82.1	1,625	5,138	16,247

Notes:
dB = A-weighted decibels; L_{dn} = day-night average noise level.
Modeling results are based on existing average daily traffic (ADT) volumes.

Source: AECOM, Environmental Noise Assessment for the River District Specific Plan Sacramento, CA., March 23, 2010

**Table 5.6-4
Summary of Modeled Levels of Year 2035 Traffic Noise in the RDSP Area**

Roadway	Segment		L _{dn} (dB) 100 Feet	Distance (feet) from Roadway Centerline to L _{dn} Contour		
	From	To		70 dB	65 dB	60 dB
Vine Street	10th Street	Richards Boulevard	61.7	15	46	147
Vine Street	12th Street	the east	66.3	43	135	428
Richards Boulevard	Bercut Drive	5th Street	69.7	93	295	934
Richards Boulevard	5th Street	Dos Rios Street	68.7	75	236	747
Richards Boulevard	Dos Rios Street	North 12th Street	66.5	44	140	442
Richards Boulevard	12th Street	the east	64.4	28	87	276
Bannon Street	Bercut Drive	5th Street	58.2	7	21	66
Bannon Street	5th Street	10th Street	61.2	13	41	131
Bannon Street	10th Street	12th Street	60.3	11	34	106
North B Street	Bannon Street	7th Street	61.4	14	44	138
North B Street	7th Street	10th Street	62.4	17	55	174
North B Street	10th Street	12th Street	64.5	28	89	282
North B Street	12th Street	16th Street	64.0	25	79	251
Jibbom Street	Richards Boulevard	the south	63.4	22	70	221
Sequoia Pacific Boulevard	Richards Boulevard	the north	63.1	20	65	205
Sequoia Pacific Boulevard	Richards Boulevard	Bannon Street	63.5	22	70	222
Sequoia Pacific Boulevard	Bannon Street	the south	63.3	21	68	214
5th Street	Richards Boulevard	Bannon Street	61.8	15	48	152
5th Street	Bannon Street	the south	61.8	15	48	151
7th Street	Richards Boulevard	Bannon Street	64.9	31	98	310
7th Street	Bannon Street	the south	64.9	31	98	309
10th Street	Richards Boulevard	Bannon Street	60.4	11	35	109
10th Street	Bannon Street	Railyards Boulevard	60.6	11	36	114
10th Street	Railyards Boulevard	the south	64.4	28	87	277
Dos Rios Street	Richards Boulevard	North B Street	55.8	4	12	38
12th Street	Richards Boulevard	North B Street	68.5	71	225	711
12th Street	North B Street	the south	69.4	86	272	861
12th Street	Richards Boulevard	the north	69.6	90	285	902
14th Street	North B Street	the south	65.6	36	114	360
16th Street	Richards Boulevard	the north	69.7	93	295	933
16th Street	North B Street	the south	68.7	73	232	735
16th Street	Richards Boulevard	North B Street	68.4	68	216	684

Interstate 5	I Street	Interstate 80	83.6	2,270	7,179	22,704
<p><i>Notes:</i> <i>dB = A-weighted decibels; L_{dn} = day-night average noise level.</i> <i>Modeling results are based on existing average daily traffic (ADT) volumes.</i></p> <p><i>Source: AECOM, Environmental Noise Assessment for the River District Specific Plan Sacramento, CA, March 23, 2010.</i></p>						

Railway

Freight and Amtrak train operations occur along the UPRR lines adjacent to the south eastern portion of the RDSP. Two active tracks carry an average of 20 freight trains a day and 16 weekday, and 11 weekend, Amtrak trains. Amtrak train events average a duration of 15 seconds while freight train events vary from 40 seconds to 5 minutes in duration. There is an established quiet zone that prohibits freight trains from sounding horns approaching the Sacramento train station; however, Amtrak trains do sound horns during the approach to the station. Based on previous field measurements, train operations along the UPRR tracks result in daily noise levels ranging from 69 dB to 72 dB L_{dn} at 65 feet from the centerline.⁴ The UPRR operational noise measurement reflects a combined noise level of freight and Amtrak operations.

Light Rail

There is an existing light rail line (Blue) located along 12th Street in the RDSP area. The light rail Blue Line runs every day of the week with up to 67 operations Monday through Friday, 63 operations on Saturdays and 55 operations Sundays and holidays through the RDSP area. The 24-hour continuous long term noise measurement site A (shown on Figure 5.6-1) was located 118 feet from the center of the light rail tracks centerline and measured 65.1 dB L_{dn}. Light rail operations are audible only when there is not continuous vehicle traffic along SR 160, as SR 160 traffic noise is the dominant noise source in this portion of the RDSP.

A recently approved extension project (Green Line to the River District) is under construction and will create approximately one mile of new light rail track on 7th Street, running from H Street northward to Richards Boulevard. A new station will be constructed at Richards Boulevard and 7th Street, adjacent to the Township 9 project. MOS-1 will connect with existing light rail downtown at H Street and operate as an independent 2.2-mile line from Richards Boulevard to the existing light rail station at 13th Street between Q and R streets.⁵ Warning bells from light rail trains also contribute to the noise environment at intersections where light rail trains cross streets at grade. Intersections in the RDSP area that would experience this noise are along 7th Street, Richards Blvd, Sierra Pacific, and along 12th Street.

Stationary Source Noise

Stationary sources of noise exist in the RDSP area. There are light industrial corridors and some areas of commercial uses. The study area is made up mostly of light industrial uses in large warehouse structures. There are pockets of heavy loading/unloading activities associated with some light industrial uses (e.g., Fed Ex). There are uses that have large motor pools with vehicle movement or storage (e.g., City offices at 300 Richards Boulevard). Public address systems are used at some light industrial uses for communication between office staff and outside workers. A public address system was observed during the ambient noise survey (Site ST-7 on Exhibit 1) at the adjacent light industrial use to the north with a maximum noise level of 52 dB at the

⁴ AECOM, *Environmental Noise Assessment for the River District Specific Plan Sacramento, CA*, March 23, 2010

⁵ Sacramento Regional Transit webpage: <http://www.sacrt.com/dna/mos-1/default.html>, accessed November 23, 2009.

measurement site. The Sacramento River Water Treatment Plant located between Bercut Drive and Bannon Street could be a source of stationary noise; however, operations were not audible during the ambient noise survey.

Groundborne Vibration

The dominant source of groundborne vibration in the RDSP area is attributable to the Blue Line Light Rail operations occurring along 12th Street/SR 160. Additional groundborne vibration is also attributable to heavy truck pass-bys on Interstate 5 (I-5); however, to a lesser extent than light-rail operations. The south eastern portion of the RDSP area experiences groundborne vibration due to freight and Amtrak train activities along the UPRR tracks.

Regulatory Context

Federal Regulations

There are no federal regulations that are directly applicable to the Proposed Project related to the generation of noise or vibration.

State Regulations

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings that house people, including hotels, motels, apartment houses, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB Ldn or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the Ldn or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels (Section 1208A.8.4). If the interior allowable noise level is met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

Local Regulations

Title 8, Chapter 8.68 of the Sacramento City Code

Subsection (e) of this Code section exempts construction noise from the requirements of Section 8.68.080 if the noise is generated between certain hours. The operation of internal combustion engines is required to have suitable exhaust and intake silencers in order to be exempt from the Ordinance.

City of Sacramento 2030 General Plan Policies

The following General Plan policies would apply to developments within the proposed RDSP area.

- EC 3.1.1 **Exterior Noise Standards.** The City shall require noise mitigation for all development where the exterior noise standards exceed those shown in Table 5.6-5 to the extent feasible.

**TABLE 5.6-5
EXTERIOR NOISE COMPATIBILITY STANDARDS FOR VARIOUS LAND USES**

Land Use Type	Highest Level of Noise Exposure that is Regarded as “Normally Acceptable” ¹ (L _{dn} ² or CNEL ³)
Residential – Low Density Single Family, Duplex,	60 dBA ⁴
Residential – Multi-family	65 dBA
Mixed-use Projects	70 dBA
Transient Lodging – Motels, Hotels	65 dBA
Schools,	70 dBA
Playgrounds, Neighborhood Parks	70 dBA
Office Buildings – Business, Commercial and Professional	70 dBA
Industrial, Utilities	75 dBA

Notes:

- As defined in the Guidelines, “Normally Acceptable” means that the “specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements.”
- Day-Night Average Noise Level. A 24-hour average Leq with a 10 dBA ‘penalty’ for hours between 10:00 pm and 7:00 am to account for increased sensitivity that people tend to have to nighttime noise.
- Community Noise Equivalent Level measurements. A Ldn with an additional 5 dBA ‘penalty’ for the evening hours between 7:00 pm and 10:00 pm. This is essentially a measure of ambient noise.
- dBA or A-weighted decibel, a measure of noise intensity.

*Source: City of Sacramento, 2030 General Plan MEIR, March 2009, Page 6.8-24
This table was modified to reflect only the information applicable to the proposed project.*

EC 3.1.2 **Exterior Incremental Noise Standards.** The City shall require mitigation for all development that increases existing noise levels by more than the allowable increment as shown in Table 5.6-6 to the extent feasible.

**TABLE 5.6-6
EXTERIOR INCREMENTAL NOISE IMPACT STANDARDS FOR NOISE-SENSITIVE USES
(DBA)**

Residences and buildings where people normally sleep ¹		Institutional land uses with primarily daytime and evening uses ²	
Existing L _{dn}	Allowable Noise Increment	Existing Peak Hour L _{eq}	Allowable Noise Increment
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

Notes:

- This category includes homes and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
- This category includes schools where it is important to avoid interference with such activities as speech and concentration on reading material.

Source: City of Sacramento 2030 General Plan MEIR, March 2009, Page 6.8-25

EC 3.1.3 **Interior Noise Standards.** The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use

- type: 45 dBA L_{dn} for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA L_{eq} (peak hour) for office buildings and similar uses.
- EC 3.1.4 **Interior Noise Review for Multiple, Loud Short-Term Events.** In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys), the City shall evaluate noise impacts on any sensitive receptors from such events when considering whether to approve the development proposal, taking into account potential for sleep disturbance, undue annoyance, and interruption in conversation, to ensure that the proposed development is compatible within the context of its surroundings.
- EC 3.1.5 **Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.
- EC 3.1.6 **Vibration Screening Distances.** The City shall require new residential and commercial projects located adjacent to major freeways, hard rail lines, or light rail lines to follow the FTA screening distance criteria.
- EC 3.1.7 **Vibration.** The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites and require all feasible mitigation measures be implemented to ensure no damage would occur.
- EC 3.1.8 **Operational Noise.** The City shall require new mixed-use, commercial, and industrial development to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded.
- EC 3.1.10 **Construction Noise.** The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses to the extent feasible.
- EC 3.1.11 **Alternatives to Sound Walls.** The City shall encourage the use of design strategies and other noise reduction methods along transportation corridors in lieu of sound walls to mitigate noise impacts and enhance aesthetics.

Impacts and Mitigation Measures

Thresholds of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of new development within the RDSP would result in any of the following significant impacts after implementation of General Plan policies:

- result in exterior noise levels in the RDSP Area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases;
- result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project;
- result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;
- permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or permit historic buildings

and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction, highway traffic, and rail operations.

Methodology

Community Noise Survey –Ambient Noise Measurements

A Noise Specialist from AECOM conducted a community noise survey on January 14 through January 15, 2010, to document the existing noise environment within the RDSP study area. Measurements of noise levels were taken at eight locations (shown on Figure 5.6-1). The measurements included one continuous 24-hour long-term measurement and 7 short-term (15 minute intervals) measurements.

Traffic Noise Level Modeling

Existing and future (Year 2015 and Year 2035) vehicle traffic noise levels in the RDSP study area were modeled using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data provided by the project traffic consultant (Dowling Associates, Inc.).

Roadway noise levels/contours were generated by a computer model, and the true levels may vary with specific conditions at particular locations. Intervening structures or other noise-attenuating obstacles between a roadway and a receptor may reduce roadway noise levels at the receptor, but such potential reductions are not assumed in the following judgments made regarding impact significance.

Impact 5.6-1	Implementation of the RDSP could result in exterior noise levels that are above the upper value of the normally acceptable category for various land uses due to an increase in noise levels.	
Central City Community Plan Area is not an area of the City that would generate more or additional noise levels than area covered by the General Plan (Page 6.8-52, MEIR)		
Mitigation and/or policies included in General Plan EIR applicable to project	EC 3.1.2 Exterior Incremental Noise Standards EC 3.1.8 Operational Noise EC 3.1.11 Alternatives to Sound Walls	
Project significance after mitigation included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.6-1	<i>Future development projects in the RDSP Area consisting of noise sensitive receptors shall have an acoustical and vibration analysis prepared to measure any potential project specific noise and/or vibration impacts and identify specific noise attenuation features to reduce impacts associated with exterior noise to a less than significant level consistent with the Policies of the General Plan.</i>
Residual Significance	<i>Significant and Unavoidable</i>	

Existing Sensitive Receptors

Development of the RDSP could result in higher exterior noise levels at existing sensitive noise receptors due to the resulting increase in traffic in the area (mobile noise) and could result in higher ambient noise levels due to the development of new stationary noise sources. New stationary sources could cause incremental increases of noise to occur in areas zoned as Heavy Commercial (C-4) and Heavy Industrial (M-2); however the only area proposed

for the M-2 zoning is the existing water treatment facility. This existing facility is located adjacent to existing residential uses along Bannon Street and North B Street (Blocks 216 and 219 shown on Figure 5.6-4.). As both of these neighboring uses are existing, incremental noise level increases would not occur at this location from stationary sources. Where the areas proposed for the C-4 zoning are located adjacent to existing residential there could be new sources of noise from future stationary sources. These areas occur in the eastern portion of the RDSP area near the residential uses (Blocks 505 and 506) at Basler and Dreher streets areas east of 16th Street and north of the proposed C-4 areas. Additional existing sensitive receptors are located near proposed C-4 zoning but not directly adjacent to consist of the Dos Rios Housing complex located south of Richards Boulevard, east of Dos Rios Street and west of 12th Street (Blocks 419, 420, 421 and 422), the Quinn Cottages, an existing 60 unit transitional housing facility is located at 16th and A Street (Block 518), and the Smythe Academy (formerly Dos Rios Elementary School) are adjacent to areas proposed for General Commercial (C-2) and near C-4 zoning designations. These sensitive receptor areas could be adjacent to future uses that create incremental increases in noises; however, most general commercial zoning would not consist of uses that create high noise levels. In the case that future uses do create increases in noise levels at existing sensitive receptors that exceed the incremental criteria shown in Table 5.6-6, project specific analysis would be required to ensure the increases in noise levels would be reduced to the extent feasible.

Compliance with City Policies EC 3.1.2 and EC 3.1.8, which requires projects to implement measures to reduce noise impacts when increases in noise levels exceed the allowable increment as shown in Table 5.6-6 and when new mixed-use, commercial, and industrial development creates operational noise impacts to adjoining sensitive uses.

Traffic Noise

As described above, there are existing areas of residential development located east of 16th Street along Basler Street and along the north side of Dreher Street (Blocks 505 and 506 in Figure 5.6-4) The other area of single-family residential within the RDSP area is along the south side of Bannon Street between North B Street and Bercut Street (Blocks 216 and 219 in Figure 5.6-4). The Dos Rios Housing complex is a multi-family housing area located south of Richards Boulevard, east of Dos Rios Street and west of 12th Street (Blocks 419, 420, 421 and 422). Directly across Richards Boulevard of the Dos Rios Housing Complex is the Smythe Academy (formerly Dos Rios Elementary School). Additionally, Quinn Cottages, an existing 60 unit transitional housing facility is located at 16th and A Street (Block 518).

As shown on Figure 5.6-2 (Existing Traffic Noise Contours), noise levels in some areas along existing roadways will increase. The single family residences along Bannon Street currently lie within the 60 dB noise contour, which means that the noise exposure is within acceptable limits (see Figure 5.6-2) and existing noise levels along North B Street from Bannon Street to 7th Street was measured to be 53.2 Ldn dB 100 feet from the centerline of the roadway (see Table 5.6-3). Figure 5.6-3 and Table 5.6-4 show that, in Year 2035, traffic noise on North B Street (between Bannon and 7th streets) could increase to approximately 61.4 dB (100 feet from centerline). This increase in traffic related noise would exceed the allowable incremental increase criteria, which is predicated on the existing noise levels at a particular location, as shown on Table 5.6-6. Because the single family lots could experience more than an 8 dB increase, development of the RDSP could result in a significant noise impact to the existing residences along Bannon Street.

The residential areas located along Basler and Dreher streets, east of 16th Street were shown to be exposed to existing noise levels of 67.1 dB measured 100 feet from centerline of 16th Street, as shown in Table 5.6-3. The nearest residential use at this location is approximately 180 feet east of 16th Street and was shown to have existing noise levels between 60 and 65 dB (Figure 5.6-2). Estimates of noise levels at buildout of the RDSP in 2035 show traffic noise levels to be approximately 68.4 dB measured 100 feet from the centerline of 16th Street as shown in Table 5.6-4. This would be an increase in noise levels of 1.3 dB, which is a fraction above the allowable increase of 1 dB for residential uses with this exposure level. The actual noise levels at these residential uses could be lower

due to their distance (180 feet) from the noise source of 16th Street and the intervening structures that provide screening of the noise.

Both the Dos Rios Housing complex and the Smythe Academy are located adjacent to Richards Boulevard and Dos Rios Street and both facilities have structures approximately 80 feet from the centerline of Richards Boulevard. The Dos Rios Housing complex also has structures located approximately 55 feet from the centerline of Dos Rios Street and approximately 70 feet from the centerline of 12th Street. Existing traffic noise levels measured at 100 feet from the centerline of the respective roadways, as shown in Table 5.6-3, were 66.3 dB on Richards Boulevard, 52.4 dB on Dos Rios Street, and 66.1 dB on 12th Street. Estimates of traffic noise levels, measured 100 feet from the centerline of the respective streets, as shown in Table 5.6-4, at buildout of the RDSP in 2035 show traffic noise levels to be approximately 66.5 dB on this segment of Richards Boulevard, 55.8 dB on this portion of Dos Rios Street, and 68.5 dB on 12th Street in this area. The incremental increase along this portion of Richards Boulevard would be 0.2 dB, which is within the allowable increase of 1 dB for residences and 3 dB for institutional (school) uses for the existing noise level of 66.3 dB. As shown this increase would not be significant. For the Dos Rios Housing complex fronting onto Dos Rios Street and 12th Street the estimated increases would be 3.4 dB and 2.4 dB. The increase along Dos Rios Street of 3.4 dB would be right at the allowable incremental increase as shown in Table 5.6-6. The increase in traffic noise levels of 2.4 dB along 12th Street at the location of the Dos Rios Housing would exceed the allowable increase of 1 for the existing noise level of 66.1 dB.

A portion of the Quinn Cottages site, which is located approximately 290 feet from 16th Street, is within the 65 dB contour and at buildout of the plan area in Year 2035, increases in noise levels are expected to be 1.8 dB 100 feet from the centerline of 16th Street at this location. This increase is greater than the allowable incremental increase of 1 dB, for the existing noise level of 66.9 dB, for the residential uses at this location.

While Policies EC 3.1.2 and 3.1.8 described above would require implementation of measures to reduce the incremental increase of noise levels from stationary sources, these same policies would do little to remediate or reduce the magnitude of increases of noise effects from traffic on existing noise-sensitive land uses or where substantial noise increases are expected. Therefore, substantial noise increases as a result of the future growth under the RDSP is considered a *significant impact*.

As noted above, there are areas of existing residential development in the RDSP area that could experience increased traffic noise levels due to development resulting from the proposed RDSP. These increases could exceed the Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses per the General Plan (see Table 5.6-6). The increases in noise could be reduced by the installation of sound walls; however, this is not considered a feasible mitigation measure because this would require new access points to the houses so that continuous soundwalls could be constructed along the street frontages. In addition the installation of sound walls would also be in conflict with the City's General Plan Policy EC 3.1-11 encouraging the use of design strategies and other methods along transportation corridors to attenuate noise in lieu of sound walls. It should also be noted that some of the roadways, specifically along 16th Street, that will experience an increase in noise levels affecting existing nearby residences, will be screened by other development. So the actual noise level exposure at these locations may be below the Exterior Incremental Noise Impact Standards.

General Plan Policy EC 3.1.8 requires new mixed-use, commercial, and industrial development to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded. For this reason, new development within the RDSP area would not result in new stationary noise sources that create exterior noise levels at sensitive receptors that exceed the allowable thresholds. The impacts from new stationary noise sources would be less than significant for the proposed RDSP.

However, because the increased traffic resulting from the RDSP would result in exterior noise levels that are above the upper value of the normally acceptable category due to the project's noise level increases; traffic noise

would be a potentially significant impact. Because there is not a feasible mitigation measure to reduce or eliminate the exterior traffic noise levels, the impact would be **Significant and Unavoidable**.

Proposed Sensitive Receptors

Development of the proposed land uses associated with the RDSP could result in the location of sensitive receptors in areas exposed to mobile or stationary noise sources in excess of acceptable levels. Residential uses will be developed throughout the RDSP area in both residentially zoned areas and in mixed use buildings. As shown in Figure 5.6-4, areas specified for residential uses consist of those areas with existing residential development and areas proposed for residential zoning along North B Street (west of 7th Street) and areas east of 16th Street, north of Basler Street. Additionally, there is Residential Mixed-Use (RMX) zoning designated for areas north of Richards Boulevard (north of the proposed Signature Street), roughly between North 10th Street and North 3rd Street. There is also some proposed RMX zoning north of North C Street, between North 6th Street and Sierra Pacific.

Figure 5.6-4 shows the proposed locations of land uses that could include sensitive receptors to noise. As shown on Figure 5.6-3, in year 2035 some of these land uses lie within noise contours that would exceed the highest level of noise exposure that is regarded as “Normally Acceptable” (see Table 5.6-5). Figure 5.6-4 shows the parcels zoned R-3 along Bannon Street and Water Street and Figure 5.6-3 shows that in 2035, the 65 dB traffic noise contour could lie within the fronts of these parcels. Additionally, as shown on Table 5.6-5, the highest level of “Normally Acceptable” noise exposure for new development on the parcels zoned for multi-family residential development is 65 dBA. As shown on Figure 5.6-3, along North B Street, the 2035 65 dB noise contour could lie along the frontages of the parcels zoned R-5. The 2035 60 dB noise contour could lie either within or outside of the parcels fronting North C Street. For those R-5 parcels fronting 7th Street, the 2035 65 dB noise contour could lie along the frontage of the parcels. The estimated noise levels at 100 feet from the center line of Bannon Street and North B Street would be a high of approximately 61.4 dB as shown in Table 5.6-4 and would have a maximum distance 44 feet from the center line of the street to the 65 dB contour and the proposed right-of-way width for Bannon Street is 90 feet and for North B Street is 100 feet. As a result the 65 dB contour would remain within the right-of-way and the future residential uses at this location would be within the normally acceptable levels for exterior noise. For the block area (Block 319) of R-5 zoning that is directly adjacent to 7th Street, the 65 dB noise contour is located approximately 98 feet from the centerline of the street. 7th Street is to have a right-of-way of 100 feet. Therefore, the area within 48 feet of the 7th Street right-of-way would be exposed to exterior noise level greater than the “Normally Acceptable” levels.

The areas proposed for the Residential Mixed-Use (RMX) zoning north of Signature Street, between Street C and North 10 Street are outside of the 65 dB Contour as shown on Figure 5.6-3 and are therefore, below the “Normally Acceptable” level of 70 dB for mixed use as shown in Table 5.6-5.

According to Figure 5.6-4 (zoning figure), the area east 16th Street north of Basler Street zoned for R-3 uses, the 65 dB noise contour lies within the parcels lines, which is the upper limit of noise exposure regarded as “normally acceptable” for multi-family residential. Based upon the estimates in Table 5.6-4 the distance from the centerline of 16th Street to the 65 dB contour would be approximately 295 feet, resulting in the potential exposure of the multi-family parcels adjacent to 16th Street to exterior noise levels exceeding the “normally acceptable” level.

The 2030 General Plan includes a number of policies that would ensure that these future noise receptors would not be exposed to noise levels above the “Normally Acceptable” levels. Policy EC 3.1.1 requires noise mitigation for all development at locations where the exterior noise standards exceed City standards. This policy would require that the siting, design, and construction of buildings be such that exterior noise from future traffic complies with City standards. However, based upon the proposed zoning of R-3 on Blocks 501, 503, and 505 that front on to 16th Street, the normally acceptable level of 65 dB would be exceeded as the 65 dB contour would

be located approximately 295 feet east of the centerline of 16th Street. As a result, the development of the RDSP could result in a significant impact.

Stationary-Source Noise

There are areas of the RDSP where proposed future sensitive receptors would be subject to exterior noise levels above the upper value of the normally acceptable category for various land uses due to the noise level increases resulting from implementation of the Plan. Future development on parcels adjacent to proposed residential parcels could result in noise levels that exceed the upper value of the normally acceptable category. Adherence to the following General Plan policies: EC 3.1-8 Operational Noise, which requires new mixed-use, commercial, and industrial development to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded; EC 3.1.10 Construction Activities, which requires development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses to the extent feasible; along with the mitigation measure listed would ensure that future sensitive receptors would not be subject to noise levels exceeding the normally acceptable category. With implementation of the policies and mitigation measure below, exterior noise impacts from the stationary sources resulting from development of the RDSP would be less than significant.

As noted above, residential development in the RDSP area could experience traffic related exterior noise greater than the “Normally Acceptable” levels as shown in Table 5.6-5. The installation of sound walls could reduce the exterior noise levels to levels below the normally acceptable level; however, this is not considered a feasible mitigation measure because this would require new access points so that continuous soundwalls could be constructed along the street frontages. In addition the installation of sound walls would also be in conflict with the City’s General Plan Policy EC 3.1-11 encouraging the use of design strategies and other methods along transportation corridors to attenuate noise in lieu of sound walls. As a result, sensitive receptors to noise could be subject to exterior noise levels above the upper value of the normally acceptable level category for the residential land use. This would be a **significant impact**.

Mitigation Measure

5.6-1

Future development projects in the RDSP Area consisting of noise sensitive receptors shall have an acoustical and vibration analysis prepared to measure any potential project specific noise impacts and identify specific noise attenuation features to reduce impacts associated with exterior noise to a less than significant level consistent with the Policies of the General Plan.

While mitigation measures could be implemented to reduce exterior noise impacts, as stated above, there are no feasible mitigation measures to reduce noise exterior noise levels to below the upper value of the normally acceptable category due to traffic related noise adjacent to several residentially zoned areas. This impact would remain **significant and unavoidable**.

Impact 5.6-2	Implementation of the RDSP could result in residential interior noise levels of Ldn 45 or greater caused by an increase in noise levels.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to noise levels than area covered by the General Plan (Page 6.8-52, MEIR)		
Mitigation and/or policies included in General Plan EIR applicable to project	EC 3.1.3 Interior Noise Standards EC 3.1.4 Interior Noise Review for Multiple, Loud Short-Term Events EC 3.1.11 Alternatives to Sound Walls	
Project significance after mitigation included in General Plan EIR	<i>Significant</i>	
Additional Mitigation for Project	MM 5.6-2	<i>Implement Mitigation Measure 5.6-1.</i>
Residual Significance	<i>Significant and Unavoidable</i>	

As described above, proposed residentially zoned areas in the RDSP that are subject to traffic noise and exterior noise sources that exceed the normally acceptable levels, may also result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project. As a result, areas of the RDSP proposed for residential zoning could result in future uses being subject to interior noise levels that exceed the City’s standards. To address this issue the General Plan includes a number of policies intended to protect sensitive uses from high noise levels. Specifically, Policy EC 3.1.3 requires new development to provide noise mitigation that assures acceptable interior noise levels appropriate to the land use type. Policy EC 3.1.3 requires noise mitigation in the design of new residential or other noise sensitive uses to ensure that interior noise standards do not exceed 45 dBA L_{dn} for places where people normally sleep and 45 dBA Leq for office buildings and similar uses. In addition, Policy EC 3.1.4 requires an evaluation of noise impacts that could occur on new development in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys). The policy also requires the City to take into account the potential for sleep disturbance, undue annoyance, and interruption in conversation prior to approving the development proposal.

Implementation of the policies would reduce to a less-than-significant level interior noise impacts on future (new) noise-sensitive (i.e., residential) land uses that could be developed under the General Plan. Similar to Impact 5.6-2, interior noise of future development would be subject to the policies of the General Plan that require measures to ensure interior noise levels are within the acceptable levels for new development. However, because no development is currently proposed it is not possible provide adequate specific mitigation measures related to the design features of future buildings. In order to achieve the reduction of interior noise levels of future residential uses, future projects involving sensitive receptors that could be exposed to noise levels exceeding the City’s noise standards will be required to prepare a project specific acoustical analysis that identifies potential impacts and noise attenuation methods, such as higher sound transmission rated windows, site design, and other mechanisms to reduce interior noise levels resulting in a ***less than significant*** impact.

Mitigation Measure

5.6-2

Implement Mitigation Measure 5.6-1.

Impact 5.6-3	Construction of the development in accordance with the RDSP could result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance.	
Central City Community Plan Area is not an area of the City that would generate more or additional construction noise levels than area covered by the General Plan (Page 6.8-52, MEIR)		
Mitigation and/or policies included in General Plan EIR applicable to project	EC 3.1.10 Construction Noise	
Project significance after mitigation/ policies included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM5.6-3	<p><i>The contractor shall ensure that the following measures are implemented during all phases of construction.</i></p> <ul style="list-style-type: none"> • <i>Whenever construction occurs near residential or other noise-sensitive uses (on or offsite), temporary barriers shall be constructed around the construction site to shield the ground floor and lower stories of the noise-sensitive uses. The barriers shall be of 3/4-inch Medium Density Overlay (MDO) plywood sheeting, or other material of equivalent utility and appearance, and shall achieve a Sound Transmission Class of STC-30, or greater, based on certified sound transmission loss data taken according to ASTM Test Method E90, or as approved by the City of Sacramento Building Official. The barrier shall not contain any gaps at its base or face, except for site access and surveying openings. The barrier height shall be designed to break the line of sight and provide at least a 5 dBA insertion loss between the noise producing equipment and the upper-most</i> • <i>Construction equipment staging areas shall be located as far as feasible from residential areas while still serving the needs of construction contractors.</i> • <i>Quieter “sonic” pile-drivers shall be used unless engineering studies are submitted to the City that show this is not feasible and cost-effective, based on geotechnical considerations.</i>
Residual Significance	<i>Less than Significant</i>	

Under the River District Specific Plan, the primary source of temporary or periodic noise within the Plan Area would be construction activity. This involves both construction-site activity and the transport of workers and equipment to and from the construction sites. .

While specific construction activities and schedules are not presently known for the RDSP, future noise from construction activities will occur and will be subject to General Plan Policy EC 3.1.10. This policy requires that development projects subject to discretionary approval assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses to the extent feasible

Since this policy would require mitigation of construction noise from future development, mitigation measures are provided below. Additionally, since construction noise would be restricted in intensity and hours of operation by the City’s Noise Ordinance contained in Title 8 – Health and Safety, Chapter 8.68 of the Municipal Code. Section 8.68.060 exempts certain activities from Chapter 8.68, including “noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure” as long as these activities are limited to between the hours of 7 a.m. and 6 p.m. Monday through Saturday, and between the hours of 9 a.m. and 6 p.m. on Sunday. Compliance with the General Plan policies as well as the Municipal Code would reduce the severity of construction noise from development under the General Plan resulting in a **less-than-significant** impact.

Mitigation Measure

5.6-3

The contractor shall ensure that the following measures are implemented during all phases of construction.

- *Whenever construction occurs adjacent to occupied residences (on or offsite), temporary barriers shall be constructed around the construction sites to shield the ground floor of the noise-sensitive uses. These barriers shall be of 3/4-inch Medium Density Overlay (MDO) plywood sheeting, or other material of equivalent utility and appearance, and shall achieve a Sound Transmission Class of STC-30, or greater, based on certified sound transmission loss data taken according to ASTM Test Method E90 or as approved by the City of Sacramento Building Official.*
- *Construction equipment staging areas shall be located as far as feasible from residential areas while still serving the needs of construction contractors.*
- *Quieter “sonic” pile-drivers shall be used, unless engineering studies are submitted to the City that show this is not feasible and cost-effective, based on geotechnical considerations.*

Impact 5.6-4	Implementation of the RDSP could result in existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to vibration levels (Page 3.CC-11, General Plan)		
Mitigation and/or policies included in General Plan EIR applicable to project	EC 3.1.5 Interior Vibration Standards	
Project significance after mitigation included in General Plan EIR	<i>Significant</i>	
Additional Mitigation for Project	MM 5.6-4	<i>Implement Mitigation Measure 5.6-3 and;</i> a) <i>During construction, should damage occur despite the above mitigation measures, construction operations shall be halted and the problem activity shall be identified. A qualified engineer shall establish vibration limits based on soil conditions and the types of buildings in the immediate area. The contractor shall monitor the buildings throughout the remaining construction period and follow all recommendations of the qualified engineer to repair any damage that has occurred to</i>

		<p><i>the pre-existing state, and to avoid further structural damage.</i></p> <p>b) <i>Prior to individual development projects, the applicant shall have a certified vibration consultant prepare a site-specific vibration analysis for residential uses and historic structures that are within the screening distance (shown in Figure 5.6-3) for freight and passenger trains or light rail trains. The analysis shall detail how the vibration levels at these receptors would meet the applicable vibration standards to avoid potential structural damage and annoyance. The results of the analysis shall be incorporated into project design.</i></p>
Residual Significance	Significant and Unavoidable	

Existing residential or sensitive uses along with proposed residential uses could be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to construction activities within the RDSP. Future construction activities that could occur under the River District Specific Plan could have the potential to generate ground-borne vibration. Construction activities would occur at discrete locations throughout the RDSP area and vibration from such activities may impact existing buildings (i.e., through structural damage) and their occupants (i.e., through activity disruption, annoyance, etc.) if they are located close enough to the construction sites. In general, vibration-induced structural damage could only occur when certain types of construction activity (e.g., blasting, pile driving, heavy earth-moving) take place very close to existing structures, while vibration-induced disruption/annoyance could occur during more common types of construction activity (e.g., truck movements) at greater distance from the activity area. Vibration disruption/annoyance levels could be problematic if sensitive uses are located within about 100 feet of potential project construction sites, where sensitive receptors (e.g., residents, school children) would experience excessive vibration levels.

Policy EC 3.1.5 would require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City criteria. Mitigation measure 5.6-1 listed above requires a site specific acoustical and vibration analysis for projects that could result in effects to sensitive receptors. In addition, the mitigation measures listed below (5.6-3 and 5.6-4) would provide further assurance of a reduction in the potential of vibration impacts.

Impacts related to construction vibration are event- and location-specific; these impacts would not occur at great distances. However, when construction vibration occurs at sensitive land uses close to construction sites, the impacts would be considered **significant**.

Mitigation Measure

5.6-4

Implement Mitigation Measure 5.6-3 and;

- a)** *During construction, should damage occur despite the above mitigation measures, construction operations shall be halted and the problem activity shall be identified. A qualified engineer shall establish vibration limits based on soil conditions and the types of buildings in the immediate area. The contractor shall monitor the buildings throughout the remaining construction period and*

follow all recommendations of the qualified engineer to repair any damage that has occurred to the pre-existing state, and to avoid further structural damage.

- b) Prior to individual development projects, the applicant shall have a certified vibration consultant prepare a site-specific vibration analysis for residential uses and historic structures that are within the screening distance (shown in Table 5.6-7) for freight and passenger trains or light rail trains. The analysis shall detail how the vibration levels at these receptors would meet the applicable vibration standards to avoid potential structural damage and annoyance. The results of the analysis shall be incorporated into project design.*

Vibration-induced structural damage could be avoided in all cases by prohibiting any construction projects that have any potential for causing structural damage to nearby buildings, as determined by a pre-construction vibration assessment in accordance with city vibration damage criteria. Vibration-induced disruption/annoyance potential should be assessed according to the FTA criteria presented in Table 5.6-7. Compliance with 2030 General Plan policy EC 3.1.5 in addition to the mitigation measures listed above would help to reduce the significance of the impact. However, there is no assurance that all construction-induced disruption/annoyance impacts could be avoided if existing sensitive uses are very close (i.e., within 150 feet) to construction sites. Since it is not feasible to prohibit all construction within 150 feet of all existing receptors, the residual potential for vibration impacts at certain receptors would be **significant and unavoidable**.

Impact 5.6-5	Implementation of the RDSP could result in adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to vibration levels (Page 3.CC-11, General Plan)		
Mitigation and/or policies included in General Plan EIR applicable to project	EC 3.1.6 Vibration Screening Distances	
Project significance after mitigation included in General Plan EIR	<i>Significant</i>	
Additional Mitigation for Project	MM 5.6-5	<i>Implement Mitigation Measure 5.6-4(b).</i>
Residual Significance	<i>Less than Significant</i>	

Development proposed for sites alongside major heavy and light rail lines or adjacent to major freeways under the RDSP would have the potential for exposure to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations. In general, the potential for vibration-induced structural damage from such sources would be very rare under any circumstances, but vibration-induced disruption/annoyance could occur if the uses were close enough to rail lines or major freeways.

Proposed residential zones in the eastern most portion of the RDSP (Blocks 520a and 520b) would be the closest to the existing UPRR railroad tracks, which lie east of the RDSP area; however, this area is proposed for a Parks land use designation (see Figure 5.6-4). This area is approximately 420 feet west of the UPRR tracks, which is outside of the screening distance identified in Table 5.6-7. Residential uses additionally may be developed throughout the RDSP area. There are no residential zones proposed within 500 feet of Interstate 5; therefore, vibration impacts to residential uses from highway traffic will not occur from implementation of the RDSP.

Operation vibration levels from the Sacramento Regional Transit’s (RT) Green Line were estimated based upon measured levels (measured approximately 50 feet from existing tracks). These estimates showed residences would experience LRT pass-by vibration levels in the range of 0.008 and 0.048 in/sec, which are well below the City’s mandated vibration levels of 0.5 in/sec for residential structures and 0.25 in/sec for historical building⁶.

Policy EC 3.1.6 would require new residential and commercial projects located adjacent to major freeways, hard rail lines, or light rail lines to follow the FTA screening distance criteria as provided in Table 5.6-7. It is not common for vibration from motor vehicles traveling on paved roads to cause disturbance in adjacent areas. The same cannot be said of vibration effects in areas along light and heavy rail routes which can cause a noise disturbance to adjacent uses. The following screening distances established by the FTA are used to help assess the potential for operational vibration impacts along rail routes.

TABLE 5.6-7			
SCREENING DISTANCES FOR VIBRATION ASSESSMENT			
Type of Transportation Route	Critical Distance for Land Use Categories Distance from Right-of-Way or Property Line		
	Category 1 Buildings where vibration would interfere with interior operations	Category 2 Residences and buildings where people normally sleep	Category 3 Institutional land uses with primarily daytime uses ²
Conventional Commuter Railroad	600	200	120
Light Rail Transit	450	150	100
Bus Projects (if not previously screened out)	100	50	--
<i>Notes:</i> 2. This could include uses such as office or light manufacturing. Source: City of Sacramento, 2030 General Plan MEIR, March 2009, Page 6.8-23			

Mitigation Measure

5.6-5

Implement Mitigation Measure 5.6-4(b).

Compliance with Policy EC 3.1.6, which necessitates the City to require new residential and commercial projects located adjacent to major freeways, hard rail lines, or light rail lines to follow the FTA screening distance criteria, would limit vibration impacts along with mitigation measure 5.6-4(b). listed above and would ensure that vibration guidelines are adhered to. As a result, vibration impacts on residential and commercial areas would be ***less than significant***.

⁶ Sacramento Regional Transit. *DNA Light Rail Transit MOS-1 Project Draft EIR*, February 2009. Chapter 5, Page 5.3-12, http://www.sacrt.com/dna/news/draft_mos-1_eir.html (accessed 2-2-10)

Impact 5.6-6	Implementation of the RDSP could result in exposure of historic buildings and archaeological sites to vibration-peak-particle velocities greater than 0.25 inches per second due to project construction, highway traffic, and rail operations.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to vibration levels (Page 3.CC-11, General Plan)		
Mitigation and/or policies included in General Plan EIR applicable to project	EC 3.1.7 Vibration	
Project significance after mitigation included in General Plan EIR	<i>Significant</i>	
Additional Mitigation for Project	MM5.6-6	<i>Implement Mitigation Measure 5.6-4 and 5.6-5</i>
Residual Significance	<i>Less than Significant</i>	

Construction activities as well as an increase in highway traffic that could occur under the RDSP could have the potential to generate ground-borne vibration. As stated above in the discussion for Impact 5.6-4, the measured range estimated for the future LRT Green Line is between 0.008 and 0.048 in/sec, well below the 0.25 in/sec criteria. Rail traffic will not increase as a result of buildout of the RDSP and therefore, would not be an impact that is generated from implementation of the RDSP. Construction activities or highway traffic in close proximity to historic buildings and archeological sites may cause structural damage under certain circumstances, for example, when blasting, pile driving, heavy earth-moving, etc. take place very close to sensitive buildings or sites. Within the RDSP area there are existing listed historic structures and structures potentially eligible for listing along with a potential historic district and contributing resources (see Figure 5.6-5). Construction activities could occur adjacent to each of these areas and increased traffic along I-5 would occur adjacent to the PG&E Plant, Station B (Block 102) and the City of Sacramento Water Filtration Plant (Block 215); however, the increases in vehicular traffic on I-5 would not create an increase in the capacity of the freeway or create an expansion of the freeway right-of-way that would encroach or impact these two resources. Elsewhere throughout the RDSP area, historic resources could be impacted by adjacent demolition and/or construction activities.

Policy EC 3.1.7 would ensure that the City require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archeological sites and require all feasible mitigation measures be implemented to ensure no damage would occur. In addition to and compatible with Policy EC 3.1.7, prior to development activities, project proponents would be required to comply with mitigation measures 5.6-3 and 5.6-4 listed above. Because historic buildings and archeological sites would be assessed for damage potential prior to construction activities, the impact to these resources would be ***less than significant***.

Mitigation Measure

5.6-6

Implement Mitigation Measures 5.6-3 and 5.6-4.

Cumulative Analysis

The cumulative context for the analysis of potential impacts due to vibration is generally site specific, rather than cumulative in nature. Because the Proposed Project would not add new heavy or light rail lines, it would not contribute to vibration in the City. For this reason, this analysis does not include a separate evaluation of cumulative impacts pertaining to vibration either during construction or implementation of future projects within the RDSP area.

Impact 5.6-7	Implementation of the RDSP along with other development in the region could result in an increase in interior and exterior noise levels in the Policy Area that are above acceptable levels.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to interior and exterior noise levels (Page 3.CC-11, General Plan))		
Mitigation and/or policies included in General Plan EIR applicable to project	EC 3.1.1 Exterior Noise Standards, EC 3.1.3 Interior Noise Standards, EC3.1.4 , EC 3.1.8 Operational Noise, EC 3.1.10 Construction Noise	
Project significance after mitigation included in General Plan EIR	<i>Significant</i>	
Additional Mitigation for Project	MM5.6-7	<i>Implement Mitigation Measure 5.6-1</i>
Residual Significance	<i>Significant and Unavoidable</i>	

Increases in noise from motor vehicles associated with all development projects in the Policy Area, combined with other development anticipated to occur in the region would lead to an increase in traffic, light rail, trains, and aircraft, and in some cases from stationary noise sources, resulting in a cumulative increase in noise in many areas, especially along area roadways, thus impacting many interior and exterior noise-sensitive uses (i.e., residences) in the city. This would be a significant cumulative impact.

As discussed above under the project-specific analysis, implementation of the 2030 General Plan policies would help to reduce both interior and exterior noise levels at future noise-sensitive land uses that could be developed under the General Plan. However, as discussed above under Impacts 5.6-1 and 5.6-2, the policies would do little to remediate or reduce the magnitude of interior and exterior noise effects on existing noise-sensitive land uses in areas with current high noise exposures or where substantial noise increases are expected.

The following are representative examples of the cumulative noise level increases (i.e., CNEL) expected to occur at uses adjacent to roadways in the River District Specific Plan Area of the city as identified in the 2030 General Plan MEIR:

Richards Blvd from Bercut to 5th 4.7 dBA

Based on the increase in traffic-related noise associated with an increase in development both within and outside of the River District Specific Plan Area vehicle trips on most local roadways are anticipated to increase. The continuing exposure of existing noise-sensitive land uses to noise levels in excess of city standards and the increase in noise as a result of future growth, attributed to the General Plan and River District Specific Plan would make a considerable contribution which would result in a ***significant cumulative impact***.

Mitigation Measure

5.6-7

Implement Mitigation Measure 5.6-1

As discussed above under Impact 5.6-1, there are no feasible mitigation measures to address the increase of exterior noise levels for existing noise-sensitive land uses (i.e., residential). Therefore, the cumulative impact would remain cumulatively ***significant and unavoidable***.

Impact 5.6-8	Implementation of the RDSP could result in cumulative construction noise and vibration levels that exceed the standards in the City of Sacramento Noise Ordinance as well as vibration-peak-particle velocities greater than 0.5 inches per second.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to vibration levels (Page 3.CC-11, General Plan)		
Mitigation and/or policies included in General Plan EIR applicable to project	EC 3.1.5 Interior Vibration Standards, EC 3.1.7 Vibration, EC 3.1.10 Construction Noise	
Project significance after mitigation included in General Plan EIR	<i>Significant</i>	
Additional Mitigation for Project	MM5.6-8	<i>Implement Mitigation Measures 5.6-3 and 5.6-4</i>
Residual Significance	<i>Less than Significant</i>	

Noise generated by each and every construction project taking place in the RDSP area would be temporary, and, therefore, would not add to the City’s permanent ambient noise background. In addition, construction noise from each project would be localized to the immediate vicinity of that site and would not be part of the cumulative context of other construction projects taking place simultaneously at more distant locations. As described in the 2030 General Plan MEIR, noise from stationary construction equipment (i.e., generators) would decrease at approximately 6 dBA per doubling of distance. Therefore, it would not be common for construction-related noise from individual projects to result in a cumulative impact.

As discussed in Impact 5.6-3, proposed project construction could have vibration impacts that are event- and location-specific; and these impacts would not occur at great distances. However, when construction vibration occurs at sensitive land uses close to construction sites the impact could be significant. For a cumulative impact to occur, project-related construction would have to occur within 50 feet of a receptor simultaneously with construction of some other development in the area. It is not anticipated that this would occur in residential areas where many sensitive receptors are located. Construction at distances greater than 50 feet from a receptor would not have the capacity to add to any cumulative vibration effect. However, numerous pieces of equipment operating within 50 feet of a receptor would have a combined effect that could result in substantial VdB levels resulting in a significant cumulative impact.

Since City policy would require mitigation of construction noise and vibration from individual future development projects and since construction noise and vibration from each project would be restricted in intensity and hours of occurrence by the City’s Noise Ordinance, construction noise and vibration from each

project would be mitigated and the project’s contribution would not be considerable resulting in a ***less than significant cumulative impact***.

Mitigation Measure

5.6-8

Implement Mitigation Measures 5.6-3 and 5.6-4.

Impact 5.6-9	Implementation of the RDSP could result in cumulative impacts on adjacent residential and commercial areas exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to vibration levels (Page 3.CC-11, General Plan)		
Mitigation and/or policies included in General Plan EIR applicable to project	EC 3.1.5 Interior Vibration Standards and EC 3.1.6 Vibration Screening Distances	
Project significance after mitigation included in General Plan EIR	<i>Significant</i>	
Additional Mitigation for Project	MM5.6-9	<i>Implementation of Mitigation Measure 5.6-4(b)</i>
Residual Significance	<i>Less than Significant</i>	

As discussed in Impact 5.6-5, development proposed for sites alongside major heavy and light rail lines or adjacent to major freeways under the RDSP would have the potential for exposure to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations. In general, the potential for vibration-induced structural damage from such sources would be very rare under any circumstances, but vibration impacts could occur if the uses were close enough to rail lines or major freeways. Since it is anticipated that traffic volumes would increase along the I-5 Freeway and that in the future is it anticipated that more freight trains may access the city along with an increase in light rail trains resulting in exposing more sensitive areas to vibration-borne effects. Compliance with Policy EC 3.1.5 requiring construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City criteria along with Policy EC 3.1.6, which necessitates the City to require new residential and commercial projects located adjacent to major freeways, hard rail lines, or light rail lines to follow the FTA screening distance criteria, would limit vibration impacts. Implementation of these policies along with the Mitigation Measure 5.6-4(b), listed above, would ensure that vibration guidelines are adhered to. As a result, this would be a ***less-than-significant cumulative impact***.

Mitigation Measure

5.6-9

Implementation of Mitigation Measure 5.6-4(b)

Figure 5.6-1: Noise Measurement Locations

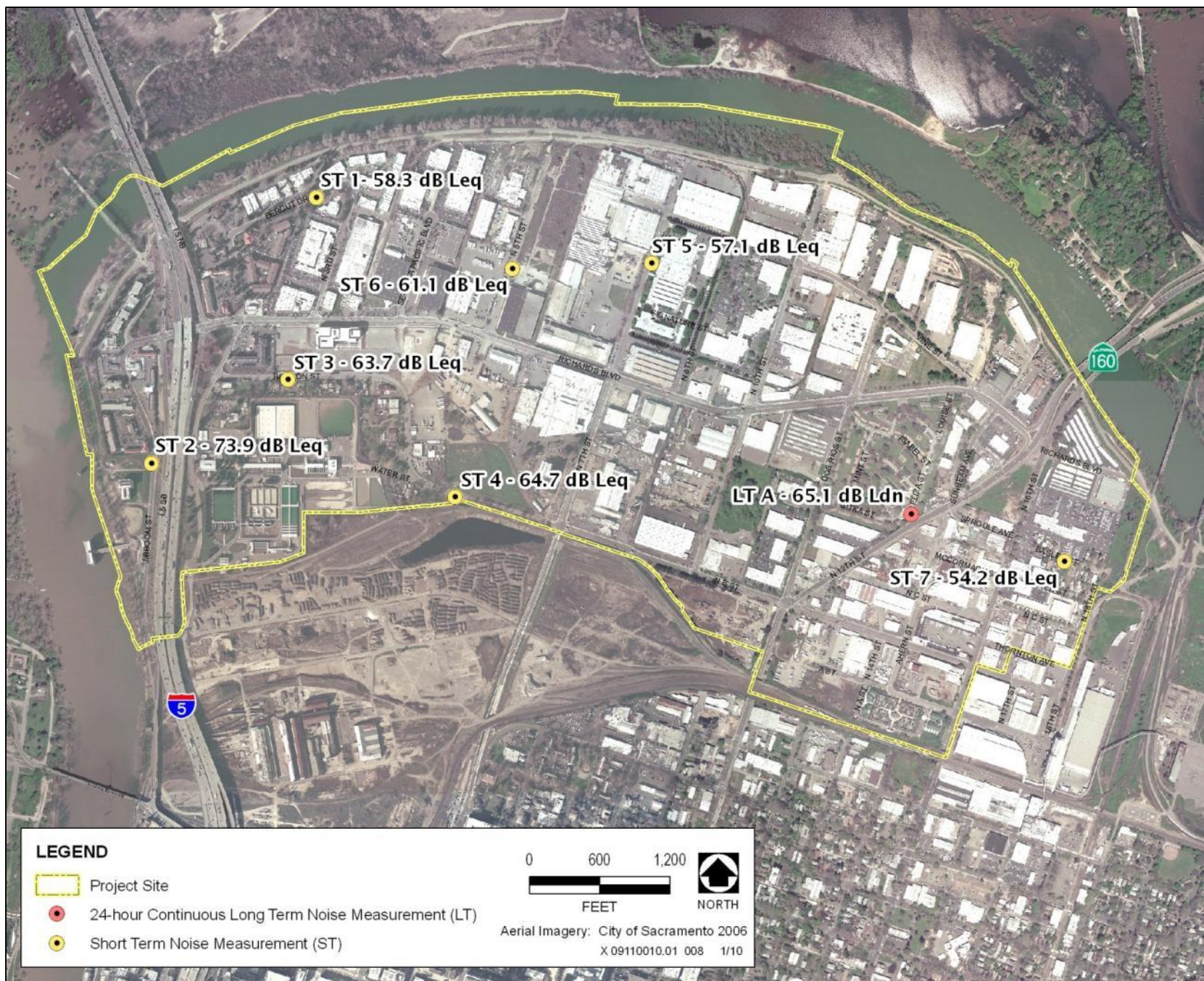


Figure 5.6-2: Existing Traffic Noise Contours

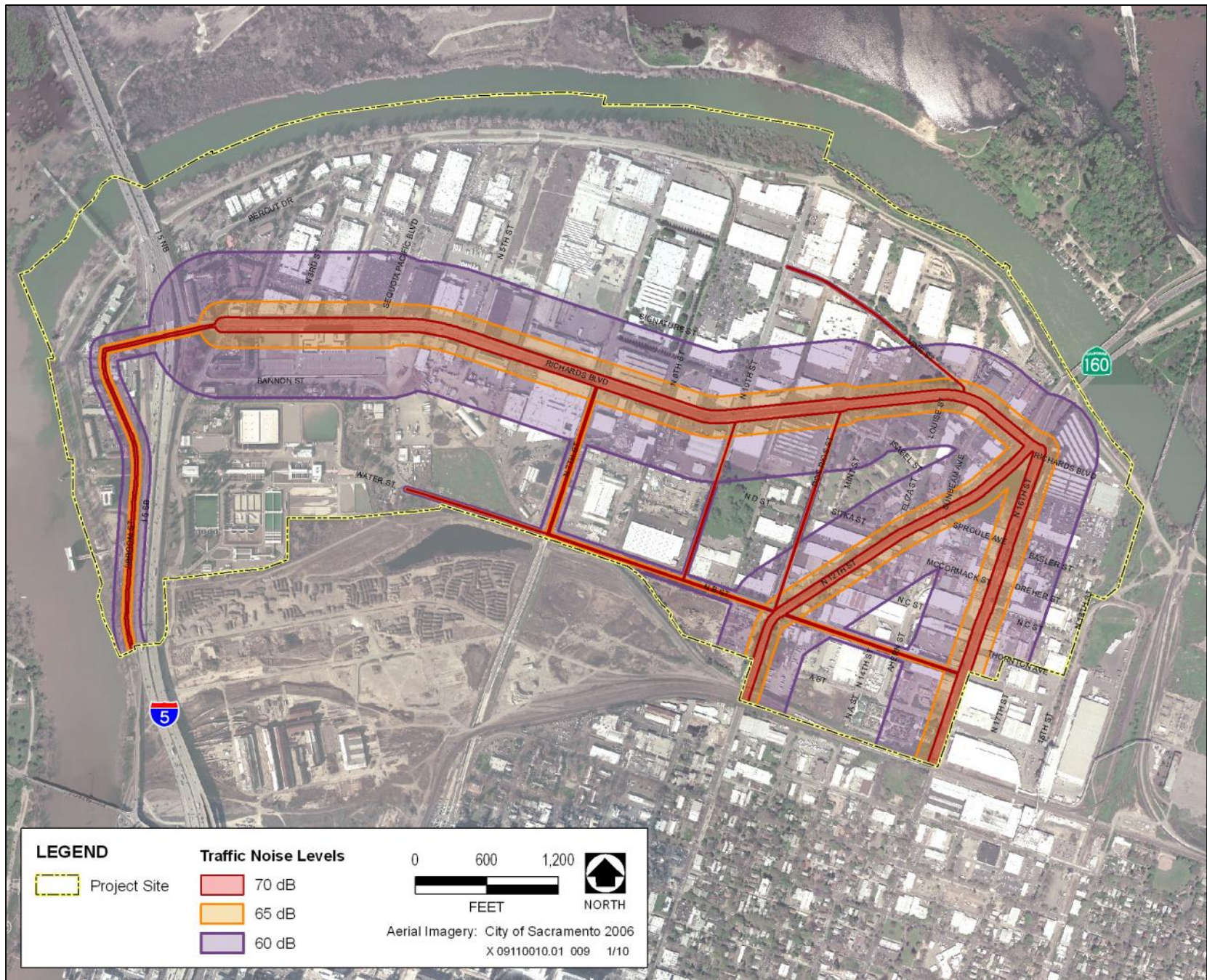


Figure 5.6-4: Block Numbers and Proposed Zoning for the River District Specific Plan

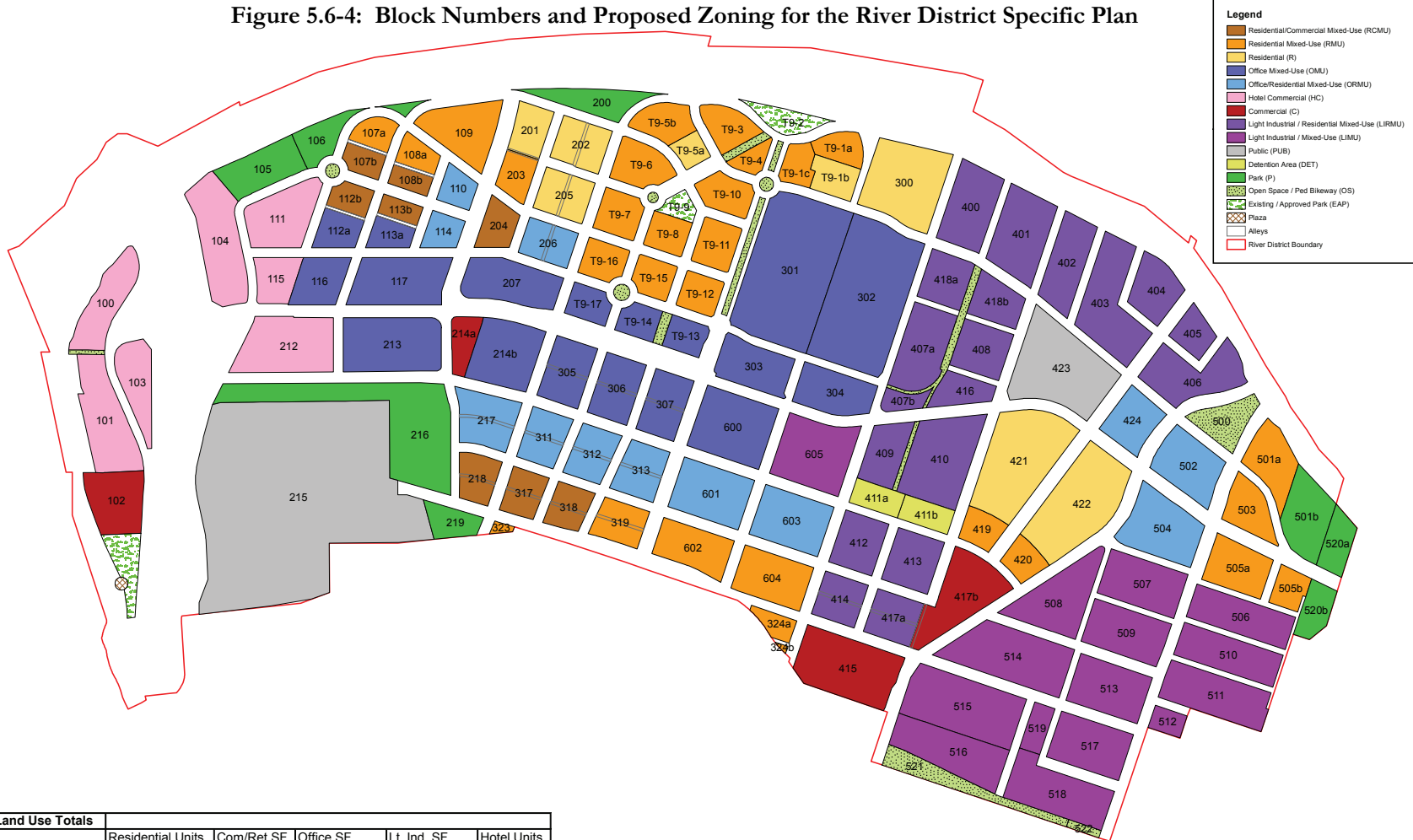
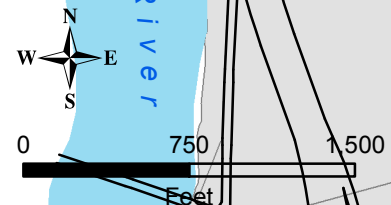
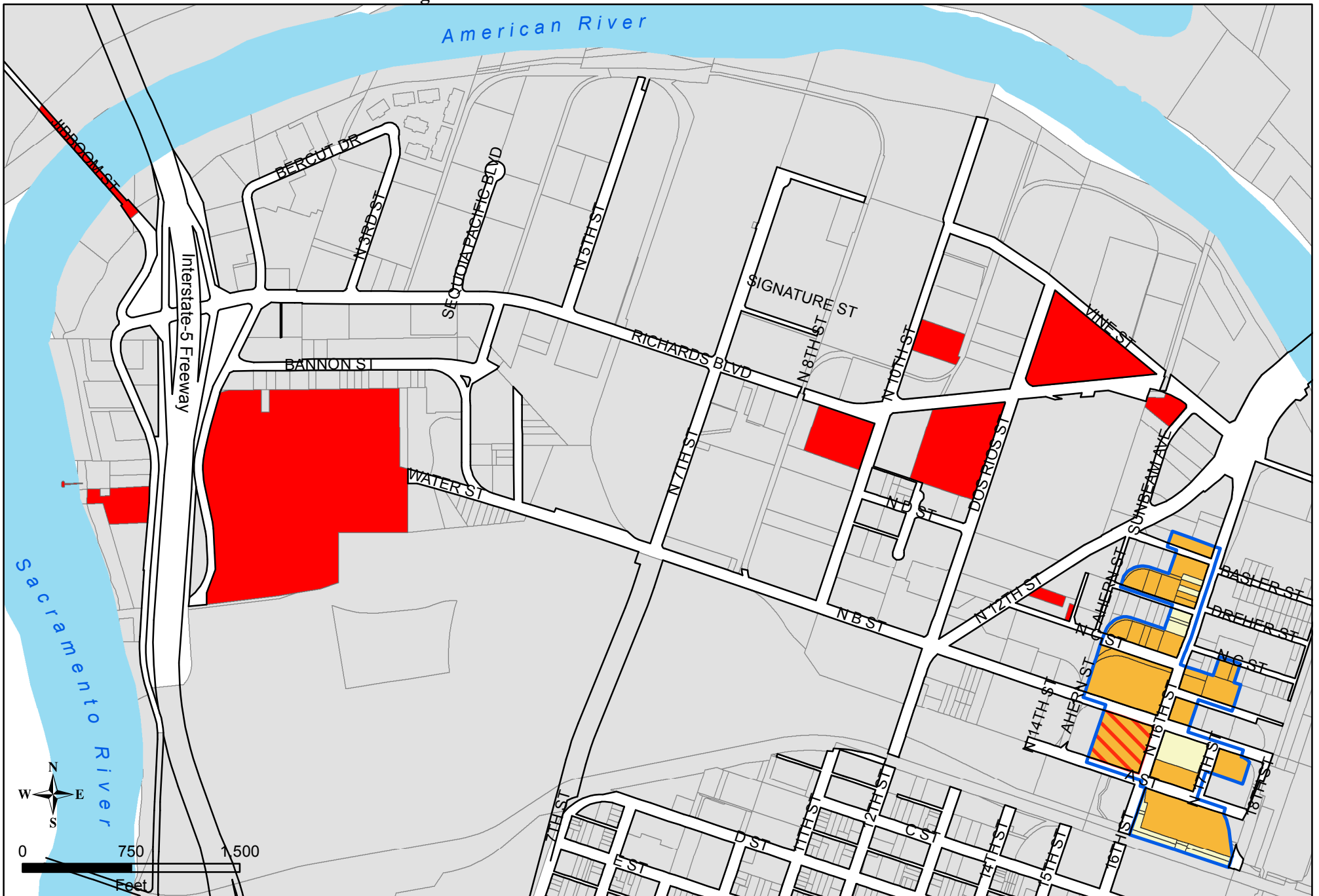








Figure 5.6-5: River District Recommended Historic Resources



-  North 16th Street Historic District Boundary
-  North 16th Street Recommended Landmarks
-  Recommended Landmarks
-  Contributing Resources
-  Non-Contributing Resources
-  Parcels

River District Recommended Historic Resources



5.7: PARKS AND OPEN SPACE

Chapter 5.7

Parks and Open Space

This section evaluates the potential effects of implementation of the Proposed Project on parks and open space. This section describes the city's existing parkland, recreational facilities and outlines applicable plans and policies related to parks and recreation.

Information for this section is based on the City of Sacramento Department of Parks and Recreation Master Plan 2005-2010, the City of Sacramento Department of Parks and Recreation Annual Report 2005, personal communication with the City of Sacramento Department of Parks and Recreation staff, and the Parks Department website.

The MEIR for the 2030 General Plan is hereby incorporated by reference, in particular, Chapter 6.9, Parks and Open Space.

Two comment letters were received in response to the NOP (see Appendix A).

A private citizen expressed concern that the proposed RDSP calls for development up against the American River rather than being accessible to the public via park or parkway. The proposed RDSP is designed to be consistent with the American River Parkway Plan, as such any planned development on the land side of the American River will be reviewed in accordance with the American River Parkway Plan.

WALKS Sacramento requested access for bikeways on the east side of the Sacramento River and the south side of the American River as a recreational amenity. The proposed RDSP is designed to be consistent with both the Sacramento River Trail and the American River Parkway Plan, which calls for improved access to these bikeways

Environmental Setting

The Parks Department maintains more than 3,000 acres of developed parkland, and manages more than 204 parks, 81 miles of on- and off-road bikeways and trails, 17 lakes, ponds, or beaches, over 20 aquatic facilities, and 18 community centers. The City of Sacramento Parks and Recreation Master Plan (PRMP) identifies 11 planning areas. The proposed project is within Planning Area 1, the Central City Community Planning Area. In the Central City Community Planning Area, with a current population of 59,164, there are 25 parks with a total acreage of 285. More specifically, in the RDSP Area, there are currently 16.1 acres of developed parkland. These parks include the Robert T. Matsui Waterfront Park at two developed acres of community-serving parkland, and Tiscornia Park, managed by the Sacramento County as part of the American River Parkway, at 14.1 acres (acres include water portion of parcels) designated as regional-serving parkland.

There are no existing neighborhood parks in the River District and the closest neighborhood park in the Central City Community Planning Area is Muir Park located at C and 12th Streets. One community park is located within the River District at 400 Jibboom Street. The Robert T. Matsui Waterfront Park is a 8.1 acre community park. In addition to the existing 16 acres of regional parkland already developed in the RDSP, the previously-approved Township 9 parkland dedications will include approximately 12 acres of Quimby-eligible neighborhood parkland.

Within the Project Area, the American River Parkway includes the Two Rivers Trail, located on the southern levee of the American River and all land north of the levee along the shore of the river. The Sacramento

County Regional Parks Department has primary management responsibilities over activities that potentially affect the Parkway. Also, the Sacramento River Parkway Trail extends from the east shore of the Sacramento River from the confluence of the Sacramento and American Rivers to the Robert T. Matsui Waterfront Park. The Two Rivers Trail and the Sacramento River Parkway Trail are considered Open Space/Parkways. The River District's situation on the shore of the Sacramento and American Rivers brings opportunities for regional connections to the City's bikeway system. Regional trails within the Parkway extend the length of the American River Parkway, a distance of 23 miles. Planned city multi-use trails, following the south shore of the American River and the east shore of the Sacramento River, will ultimately extend the regional bikeway system to the far reaches of the city limits. The River District's location at the hub of these two planned regional links will offer future River District residents endless options for recreational outings along with bicycle commuting opportunities.

State and City regulations determine the amount of required parkland in the City, and the Sacramento PRMP guides park development in the City. City parks are generally categorized into four distinct park types: neighborhood, community, regional parks, and open space/parkways.

Neighborhood Parks are generally five to ten acres in size and are intended to be used primarily by residents within a half-mile radius. Some neighborhood parks are situated adjacent to elementary schools, and improvements are generally oriented toward the recreation needs of children. In addition to landscaping, improvements might include a tot lot, or unlighted sport fields or tennis courts. Urban Plazas/Pocket Parks generally fall under the category of neighborhood serving parks and tend to be less than five acres in size.

Community Parks are generally 10 to 60 acres in size and have a service area of approximately two to three miles, which encompasses several neighborhoods and meets the requirements of a large portion of the City.

City wide/Regional Parks are larger sites developed with a wide range of improvements usually not found in local neighborhood or community facilities to meet the needs of the entire city population. Generally, the City wide/Regional category is comprised of regional parks, linear parks/parkways, and open space. It should be noted that some portions of these sites/acreages are also considered Community/Neighborhood serving due to their location near existing communities.

Open Space/Parkways are natural areas that are set aside primarily to enhance the city's environmental amenities. Recreational use of these sites is generally limited to natural features of the sites, such as native plant communities or wildlife habitat. Parkways are similar to open space areas because they also have limited recreational uses and are primarily used as corridors for pedestrians and bicyclists, linking residential uses to schools, parks, and commercial developments.

Regulatory Context

Federal

There are no federal regulations associated with parks and open space that apply to this project.

State

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and

recreation purposes. Quimby parkland dedication is required for residential components prior to the time a final subdivision map or parcel map is recorded. Parkland must either be dedicated in fee title or as an irrevocable offer of dedication (IOD). The required dedication and/or fee are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used by the City for acquisition, new park construction, improvement, and expansion of neighborhood, community and regional parks, playground, and recreational facilities or the development of public school grounds.

Local

City of Sacramento Code Chapter 16.64 Parks and Recreational Facilities

Chapter 16.64 of the City's Code provides standards and formulas for the dedication of parkland and Quimby in-lieu fees. These standards and formulas help the City acquire new parkland. Chapter 16.64 sets forth the standard that five acres of property for each 1,000 persons residing within the City be devoted to local recreation and park purposes. The amount of land to be provided shall be determined pursuant to the appropriate standards and formula in the Code section. The standard set forth under this Code is the City's service level goal for both neighborhood and community serving parkland dedication. A payment of an in-lieu fee or combination of a parkland dedication and payment of an in-lieu fee may be required, given the characteristics of a project. The in-lieu fee amount is based on the required dedication of land, the average land value for the particular Community Plan Area, and a cost for off-site improvements.

Chapter 18.44 Park Development Impact Fee

Chapter 18.44 of the City's Code imposes a Park Development Impact Fee (PIF) on all new construction or additions for residential, retail, office or industrial uses and is paid when building permits are issued. Fees collected pursuant to Chapter 18.44 are primarily used to finance the construction of park facilities, additions or renovations to existing parks within the Community Planning Area within which they are collected. The park fees are assessed upon landowners developing property in order to provide all, or a portion of, the funds necessary to provide neighborhood or community parks required to meet the needs of and address the impacts caused by the additional persons residing or employed on the property as a result of the development.

City of Sacramento 2030 General Plan Policies

ERC 2.2.3 Service Level Goals. The City shall develop and maintain parks and recreational facilities in accordance with the goals for neighborhood serving parks at 2.5 acres per 1,000 residents and community serving parks at 2.5 acres per 1,000 residents.

ERC 2.2.4 Meeting Service Level Goals. The City shall require new residential development to dedicate land, pay in-lieu fees, or otherwise contribute a fair share to the acquisition and development of parks or recreation facilities to meet the service level goals. For development in urban infill areas where land dedication is not feasible, the City shall explore creative solutions in providing park and recreation facilities that reflect the unique character of the area it serves.

ERC 2.2.9 Small Public Places for New Development. The City shall allow new development to provide small plazas, pocket parks, civic spaces, and other gathering places that are available to the public, particularly in infill areas, to help meet recreational demands.

ERC 2.2.17 Joint-Use Facilities Co-located. The City shall support the development of parks and recreation facilities co-located with public and private facilities (e.g., schools, libraries, and detention basins).

Impacts and Mitigation Measures

Thresholds of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of new development within the RDSP would result in the following impact that remains significant after implementation of General Plan policies:

- cause or accelerate a substantial physical deterioration of existing area parks or recreational facilities.

Methodology

The City of Sacramento's parkland dedication requirements are outlined in the 2030 General Plan, the Parks and Recreation Master Plan 2005-2010 and City Code, Chapter 16.64. Section 16.64 of the City Code establishes the formulas for the provision of parkland required for new development. Meeting these requirements would provide the public with opportunities to access parks within reasonable walking or driving distance of all residences. Therefore, for the purposes of the analysis the following City requirements are used:

- Neighborhood Serving: 2.5 acres per 1,000 population with a service area guideline of 0.5 mile.
- Community Serving: 2.5 acres per 1,000 population with a service area guideline of 3 miles.

There are 2,350 residential dwelling units that are part of previously-approved development (Township 9) and 386 existing dwelling units. Because the impacts to parks or recreational facilities were previously analyzed in other environmental documents for these developments, they are not considered in the project-level analysis; but they are considered in the cumulative analysis. Only the new dwelling units (5,408) that could be developed as a result of the RDSP is considered for project specific impacts.

The development of new residential units in the RDSP area is anticipated to occur over the life of the plan, to year 2035, as would the increase in population and the need for new/expanded parkland acreage. For the purposes of park acreage need analysis, the City of Sacramento's Department of Parks and Recreation uses a factor of 1.76 persons per household for multi-family residential uses, as determined by the Quimby Ordinance. Buildout of the RDSP would result in approximately 5,408 new multi-family residential units, or approximately 9,518 new residents.¹

¹ Multi-family persons per household of 1.76 multiplied by the dwelling units (5,408) equals a population of 9,518, per Mary de Beauvieres, Parks and Recreation Department.

Impact 5.7-1	Implementation of the RDSP could cause or accelerate a substantial physical deterioration of existing area parks or recreational facilities.
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to the provision of providing parks, recreation and open space resources for new development (Page 3.CC-10, General Plan).	
Mitigation/ policies included in General Plan EIR applicable to project	General Plan Policies ERC 2.2.3 Service Level Goals ERC 2.2.4 Meeting Service Level Goals ERC 2.2.9 Small Public Places for New Development, ERC 2.2.17 Joint-Use Facilities Co-located
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than significant</i>
Additional Mitigation for Project	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>

The increase in population resulting from the development of proposed residential land uses within the RDSP area would necessitate the development of neighborhood and community serving park acreage. The required parkland, based on build-out of approximately 5,408 new multi-family residential units or 9,518 new residents would be a total of 47.6 acres of neighborhood and community parkland needed in total (see Table 5-7-1).

Table 5.7-1		
Required Parkland Dedication (per City Code Chapter 16.64)		
Assuming 9,518 new Residents in RDSP area	Community Serving (2.5 acres/1000 persons)	23.80 acres ²
Assuming 9,518 new Residents in RDSP area	Neighborhood Serving (2.5 acres/1000 persons)	23.80 acres ³

Proposed parkland acreage was compared with the amount required by City Code. For the purposes of this analysis, a significant impact would occur if the increased use of existing park facilities results in a substantial physical deterioration or requires construction of additional park facilities, either of which could cause adverse environmental impacts.

Land that can legally be dedicated to the City is considered to contribute toward meeting the requirements for the provision of parkland.

² 9,518 residents multiplied by 2.5 acres divided by 1,000 = 23.80 acres of neighborhood parkland needed.

³ 9,518 residents multiplied by 2.5 acres divided by 1,000 = 23.80 acres of community parkland needed

Table 5.7- 2			
Parkland for RDSP Area (within RDSP Boundary)			
	Park Type		
	Regional (ac)	Community (ac)	Neighborhood (ac)
Existing			
Robert T. Matsui Waterfront Park		8.1	
Tiscornia Park	14.0		
Total Existing Parkland in RDSP area	14.0	8.1	
Previously Approved within RDSP Area but Not Yet Developed			
Township 9 PUD – various lots and easements			12 - 15
Total Existing and Previously Approved Parkland	14.0	8.1	12 - 15
Parkland Proposed as part of the RDSP Project (within RDSP boundary)			
Lot 105			3.36
Lot 106			2.03
Lot 106a			0.33
Lot 200			1.99
Lot 219			1.68
Lot 501b			3.68
Lot 520a/b			3.51
Lot 216		9.99	
Subtotal for Parkland Proposed as part of RDSP project (within RDSP boundary)		9.99	16.58
Total¹	22.5	18.09	28.6 – 31.6
Required Parkland Dedication	0	23.80²	23.80
<i>Notes:</i>			
1. Total of existing, previously-approved but not yet developed, and proposed as part of RDSP			
2. See text below for a discussion of the provision of community park land outside the boundaries of the RDSP, as allowed by City Code.			

As shown in the above table, the amount of community-serving parkland proposed to be located within RDSP boundary would be less than the required amount of 23.80 acres, by 5.71 acres⁴.

In redevelopment areas, such as the RDSP area, the City may require the dedication of parkland to meet the neighborhood serving parkland requirement only, or 2.5 acres for every new 1,000 residents, with the community serving parkland dedication requirement met through the payment of Quimby in-lieu fees. In accordance with City Code Chapter 16.64, the in-lieu fees may be pooled and used for acquisition of a

⁴ 23.80 acres required community serving parkland minus the 18.09 acres existing and proposed community parkland = 5.71 acres

community park site to serve the area or to make improvements to existing parks serving the Central City Community Plan area. The Parks Department determines which parks should be developed/ improved with them according to the PRMP. As such, the City may make additional improvements to community parks within the service area of 2-3 miles of the RDSP area to meet the community park goals for the residents of the RDSP.

One potential area is Sutter's Landing Park, which consists of approximately 163 acres and is located adjacent to the RDSP area on the east. Portions of the Park are currently developed; however, the portion of the Park adjacent to the RDSP area is still in its natural state. The Parks Department stated that one option for the provision of community park land within the RDSP area is to use the in-lieu fees paid by parcels developed within the RDSP area for development of a 20-acre community park on the western-most portion of the Sutter's Landing Park. With the development of community parkland acreage outside of the boundary of the RDSP, the community service level goal for the RDSP would be met.

The Small Public Places program (see General Plan Policy ERC 2.2.9) recognizes that for infill areas not well served by existing parks, a traditional community or neighborhood park may not be possible due to land constraints and the lack of large undeveloped parcels. In these situations, a small park such as a plaza or tot lot can help meet the need for a neighborhood gathering place. The area to the east of North 12th Street is largely developed, and other other the Two Rivers Trail, lacks a park or public space. This area would benefit from the type of park envisioned by the Small Public Spaces program. The City also allows the development of parks facilities that are co-located with public and private facilities, such as schools and detention basins (ERC 2.2.17).

Unlike Quimby and City Code Chapter 16.64 requirements for residential developers to provide 5 acres of neighborhood and community serving parkland per 1,000 residents, developers are not required to meet Citywide/Regional parkland and open space/parkways service level goals. These are a goals set by the City to meet citywide. However, if a residential or commercial development is adjacent to a city-adopted off-street bikeway, the developer would be required to provide funding for the bikeway or the installation of a segment of the bikeway for the entire length of the parcel the development is located on. The proposed parcels with open space corridors located within the parcels, such as parcels 407a through 411b, 412, 413, 414, 417a, 417b, 418a, and 418b would likely be required to provide funding for the bikeway or install a segment of the bikeway that would be located within the open space corridor.

In addition to Quimby dedications through City Code Chapter 16.64, all new development in the RDSP that fits the definition of 'development' under Chapter 18.44.060 (Park Development Impact Fee) will contribute to the funding for improvements to neighborhood and community parks; however, the funds will not be used for acquisition of parkland acreage within the RDSP. All new development, including residential, commercial, office, industrial land uses, is required to meet the needs of and address the impacts caused by the additional persons residing or employed on the property as a result of that development.

The proposed policies in the River District Specific Plan, P 1a through P 2a, address the provision for community and neighborhood parks within the River District Plan Area, which will adequately serve the new residents of the RDSP and is consistent with the goals and policies within the City's Parks and Recreation Master Plan. Proposed policies P 3a and P 8a provide for a setback along the American and Sacramento rivers for the purpose of public enjoyment of the rivers. And proposed policy P 4a encourages the joint use of public facilities for public recreation. The application of these policies specific to the RDSP, combined with the General Plan policies further ensures that the implementation of new development within the RDSP would not result in a substantial physical deterioration of existing area parks or recreational facilities.

- Policy P 1a: Provide a community park consistent with the City’s Parks and Recreation Master Plan 2005-2010.
- Policy P 1b: Provide active play areas in the community park that will serve residents within a two to three mile area.
- Policy P 2a: Locate neighborhood parks within residential areas and on secondary streets.
- Policy P 3a: Encourage riverfront development to incorporate open spaces along the river for public enjoyment.
- Policy P 4a: Encourage joint use of public facilities such as detention basins, parks and open space.
- Policy P 8a: Set back buildings a minimum of 50 feet from the toe of the land side of the levee (“transition zone”), as directed by the 2030 General Plan.

Park parcels will be dedicated as a condition of residential land divisions or acquired through use of Central City Community Planning Area Quimby in-lieu funds. The Parks Department will also require dedication within larger residential subdivisions within the RDSP area on a case-by-case basis.

General Plan Policies ERC 2.2.3, ERC 2.2.4, ERC 2.2.9, ERC 2.2.17, ERC 2.4.1, combined with the City Code Chapters 16.64 and 18.44 requirements, and would assist in meeting the service level goals for the Project Area. Therefore, this impact would be ***less than significant***.

Mitigation Measure

5.7-1

None required.

Cumulative Analysis

Impact 5.7-2	Implementation of the RDSP, in addition to other development within the City, could cause or accelerate a substantial physical deterioration of existing area parks or recreational facilities.	
Mitigation for Project	MM 5.7-5	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

The proposed RDSP would result in development of additional residential development that would require the use of park and recreational facilities. However, State law and City Code require all development to provide sufficient facilities to serve the resulting number of residents. These regulations would apply to any development within the City.

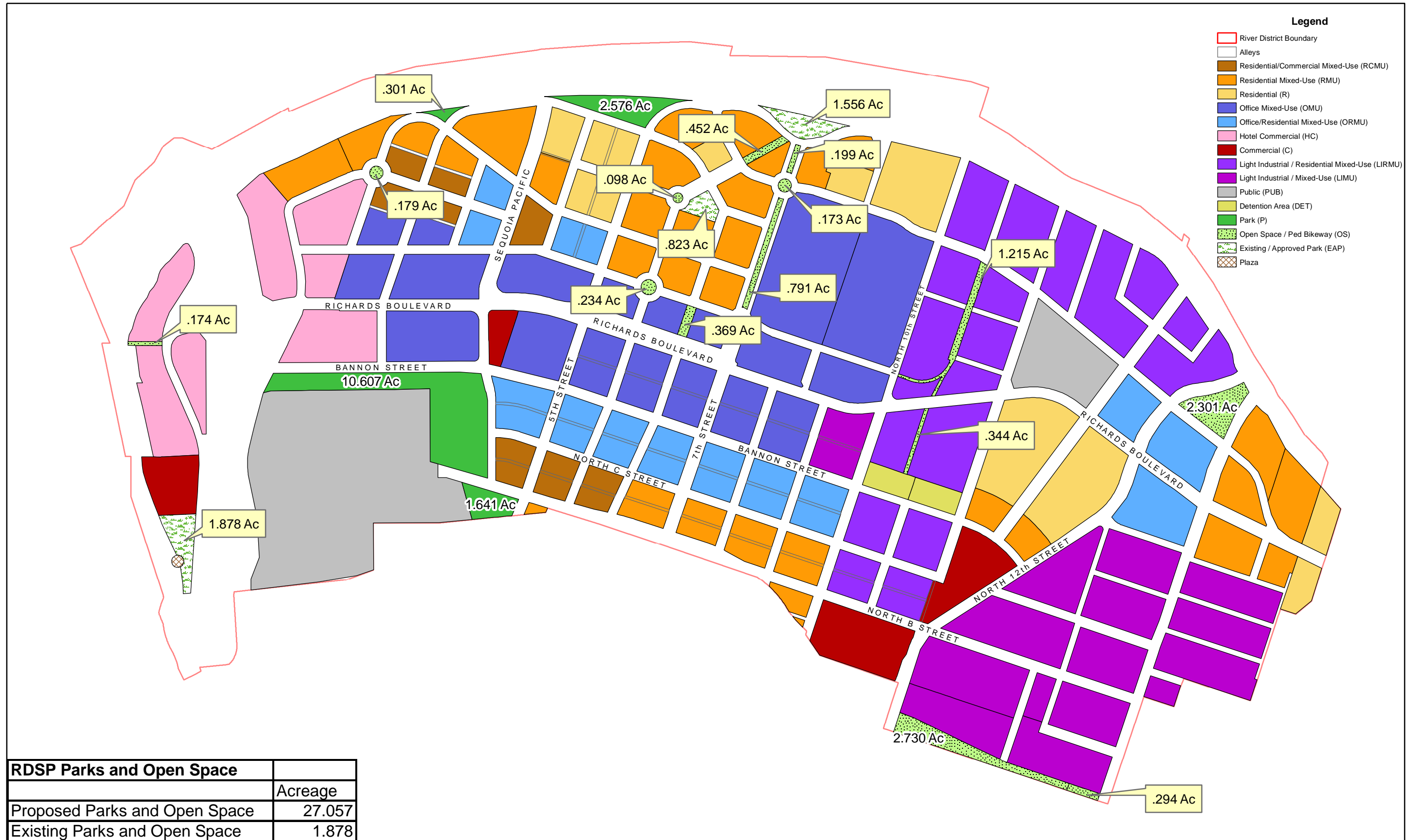
Because all development including the proposed RDSP, would be required to comply with the regulations enacted by the State and City to provide parks, the combined cumulative impact associated with the project’s incremental effect and the effects of other projects is not significant. For this reason, the cumulative impact is considered ***less than significant***.

Mitigation Measure

None required.



Figure 5.7-1: RDSP Proposed and Existing Parks and Open Space



5.8: PUBLIC SERVICES

Chapter 5.8

Public Services

The information in this chapter about public services (police, fire, and schools) describes the existing services within the River District Specific Plan (RDSP) area, calculates the additional demand at full buildout of the RDSP, and determines the demand in relation to the planned buildout of the RDSP area assumed in the City's 2030 General Plan. Finally, there is an analysis whether physical environmental effects would result from the provision of the police, fire, and school services to the RDSP area.

The City's Master EIR for the 2030 General Plan analyzed impacts to libraries and additional students requiring facilities for higher education due to full buildout of the City in accordance with the General Plan.

The provision of library facilities for individual projects within the City is not analyzed for environmental effects because the provision of library services is through a joint powers agency, the Sacramento Public Library Authority (SPLA), between several cities and the County. Because a large portion of the SPLA area is outside of the City's 2030 General Plan policy area, expansions of existing library facilities and opening of new ones are beyond the authority of the City. For this reason, this chapter does not address the potential impacts of the RSDP on library facilities.

Higher education facilities are planned on a statewide level by the State and individual projects are not required to mitigate for potential impacts; therefore, this chapter does not address the potential impacts.

The City's Master EIR also examined impacts to emergency services. Emergency preparedness and response are provided by the City's Fire Department, the Sacramento Metro Department, and other public and private entities (e.g., ambulance providers and hospitals.). Because the planning and provision of such services is regional, under the control of private organizations/entities, and/or part of mutual aid agreements between several public entities, the expansion of services for emergency services is beyond the authority of the City and this chapter does not address the potential impacts due to implementation of the RDSP.

The information in this chapter came from the City's 2030 General Plan, the General Plan MEIR, the EIR for the Township 9 project, and staff from the City's Police and Fire Departments.

No comments pertaining to the provision of police and fire services, or schools were received in response to the NOP.

Police

Environmental Setting

The City of Sacramento provides police protection for the RDSP area. Some of the Department's operations are located within the RSDP area, at 300 Richards Boulevard. The facility serves as an interim substation of the surrounding area. Because the building does not meet current seismic standards for emergency facilities, it is not envisioned as a permanent police station.

The River District is in District 3, Beat A, which is generally bounded by I Street on the south, 16th Street to the east, and the Sacramento and American Rivers to the east and north.

Emergency police service is characterized by the response of officers already in the field. Currently, the existing police stations in the City are staffed beyond capacity. The proposed development in the RDSP area, combined with the previously-approved Railyards Specific Plan and projected development of the downtown, would necessitate the construction of a new police station. This facility is able to serve the existing needs within the downtown but will not be able to support the projected growth that would result from the development in the Central City area. A new police facility would be required to service new growth in this area.¹

Regulatory Context

Federal

There are no federal regulations that are directly applicable to the Proposed Project for the provision of police facilities.

State

There are no State regulations that are directly applicable to the Proposed Project for the provision of police facilities.

Local

City of Sacramento 2030 General Plan Policies

The following General Plan policies would apply to developments within the proposed RDSP area.

PHS 1.1.8 Development Fees for Facilities and Services. The City shall require development projects to contribute fees for police protection services and facilities.

Impacts and Mitigation Measures

Threshold of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of new development within the RDSP would result in the following impact that remains significant after implementation of General Plan policies:

- Require or result in the construction of new, or the expansion of existing, facilities related to the provision of police protection.

Methodology

As noted in Table 3.1, there are 2,350 residential dwelling units that are part of previously-approved developments and 386 existing dwelling units. Because the impacts to police facilities resulting from these

¹ EIP Associates, a division of PBS&J, *Township 9 (P06-047) Draft Environmental Impact Report*, SCH No. 2006072077, February 2007, Page 6.10-5.

developments were previously analyzed in other environmental documents, they are not considered in the project-level analysis; but, they are considered in the cumulative analysis.

Although the Police Department has a target ratio of 2.0 sworn officers per 1,000 residents, current funding is for 1.7 officers per 1,000 people. The Department also assumes one civilian support staff per two sworn officers. The estimated number of officer and civilian staff needed to serve the RDSP area at full buildout was provided by the Department.

The development of new residential units in the RDSP area is anticipated to occur over the life of the plan, to Year 2035, as would the increase in population and the need for new/expanded police protection services.

The significance of impacts is determined using the above Thresholds of Significance.

Impact 5.8-1	Implementation of the RDSP could result in the need to construct new, or expand existing, facilities related to the provision of police protection.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the provision of police services to new developments than area covered by the General Plan (Page 3-CC-11).		
Mitigation/ policies included in General Plan EIR applicable to project	PHS 1.1.8 – Development Fees for Facilities and Services	
Project significance after mitigation/policies included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.8-1	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

The Department estimated projected demand for police service in the RDSP based on the planned development of residential and non-residential uses. It is estimated that demand at full buildout of the SP would be up to 30 additional personnel, to include 20 sworn officers and 10 civilian support staff.² The increase in population resulting from the development of the proposed RDSP area may necessitate the development of new or physically altered police facilities to serve the additional population.

There are currently no provisions for new or expanded police facilities in the RDSP; however, the Specific Plan would not preclude the development of such facilities.

General Plan Policy PHS 1.1.1 requires the City to maintain and implement its Police Master Plan, which addresses facility needs. The City is also required, by General Plan Policy PHS 1.1.4, to ensure the development of police facilities keeps pace with development and growth in the City. The MEIR for the 2030 General Plan assumed that compliance with the General Plan policies related to the provision of police services in the City would ensure that adequate police services would be provided to serve the anticipated increase in demand due to development in accordance with the General Plan; and therefore, concluded that the impact would be less than significant.

The proposed RDSP would not require a General Plan Amendment and the density of development is essentially the same as assumed in the MEIR for the General Plan. For this reason, it is assumed that the

² City of Sacramento, *River District Specific Plan*, June 2010, Page 63.

population anticipated to be generated by full buildout of the RDSP would be similar to the population assumed for the area of the RDSP in the MEIR. The General Plan includes measures to accommodate growth and increased service demands. General Plan Policy PHS 1.1.6 requires the City to seek to co-locate police facilities with other City facilities, such as fire stations. Therefore, Goal CS 1c, of the RDSP, that provides for the relocation of the existing fire station on North C Street to a new location that has access to the 16th Street corridor could be an opportunity for the City to co-locate a new police facility.

As stated on Page 6.10-12 of the MEIR, “because future development anticipated under the 2030 General Plan would be required to comply with the General Plan policies, adequate police services would be provided to serve the anticipated increase in demand. Through the implementation of these policies the proposed project [buildout of the City under the 2030 General Plan] would result in a *less-than-significant impact*”.

The development of new residential units in the RDSP area is anticipated to occur over the life of the plan, to 2035, as would the increase in population and the need for new/expanded police services. As growth occurs over the next 25 years, all development in the RDSP would be required to contribute fees for police protection services and facilities (General Plan Policy PHS 1.1.8), thereby ensuring that future development pay fees for the increased need for police protection.

Section 15168(c) of the CEQA Guidelines acknowledges that all of the information necessary to analyze potential impacts associated with anticipated subsequent activities may not be available at the time of preparation of a program EIR. Because the location, size, and type of such a facility are not currently known, it is not possible to determine the impacts resulting from construction and operation of any new or expanded police facility. Therefore, the new/expanded police facilities that would serve development in the RDSP area could be located outside of the District. The location and timing of new and/or expanded police facilities would be determined through the maintenance of the City’s required Police Master Plan. Subsequent activities in a program EIR must be examined in light of the program EIR to determine whether an additional environmental document must be prepared to determine if the activity would have effects that were not examined in the program EIR.

Implementation of the RDSP could result in the construction of new, or the expansion of existing, facilities related to the provision of police protection; however, for the reasons discussed above, and per the conclusion in the MEIR for the General Plan, the impact, as it relates to the proposed RDSP, would be ***less than significant***.

Mitigation Measure

None required.

Cumulative Impacts

Impact 5.8-2	Implementation of the RDSP ,combined with full buildout of the City in accordance with the 2030 General Plan, could result in the need to construct new, or expand existing, facilities related to the provision of police protection.	
Mitigation for Project	MM 5.8-2	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

As stated in the MEIR for the 2030 General Plan, development in accordance with the General Plan would require new or expanded facilities to house the additional police staff necessary to serve the growth in

population³. The proposed amount of development for the RDSP assumed in the analysis in the MEIR is similar to that anticipated at full buildout of the RDSP. Since certification of the MEIR in March 2009, no projects have been approved that would significantly increase the demand for police services in the City above the demand assumed in the General Plan MEIR. In addition, no stations have been constructed or expanded.

The development of the required Police Master Plan to plan for future police facilities and the General Plan requirement that the City ensure that the provision of police facilities keep pace with development in the City will ensure that as the RDSP area, in addition to the rest of the City, develop adequate police facilities planned for and provided. All development in the City is required to contribute fees for police protection services and facilities (General Plan Policy 1.1.8); thereby ensuring that future development pays fees for the increased need for police protection.

The cumulative impact of development in the General Plan was determined to be *less than significant* and remains so with this project.

Mitigation Measure

None required.

<i>Fire</i>

Environmental Setting

The City of Sacramento provides fire protection for the RDSP area. City Fire Station Number 14 is located within the RSDP area at 1341 North C Street. The building was built in 1948 and does not meet the seismic requirements of the Essential Service Building Seismic Act of 1986. It is not cost effective to retrofit the building. In addition, the station is constrained by surrounding development and cannot be expanded. The building is potentially eligible for listing in the California and Sacramento Registers of Historic Resources.

The City is currently actively seeking a larger and more modern facility. Goal CS 1c of the proposed RDSP acknowledges this need: provide for the relocation of the existing fire station on North C Street to a new location that has access to the 16th Street corridor and meets Fire Department criteria for construction and siting.

Regulatory Context

Federal

There are no federal policies that are directly applicable to the Proposed Project for the provision of fire protection services.

³ City of Sacramento, 2030 General Plan Master Environmental Impact Report, certified March 2009, Page 6.10-12.

State

Uniform Fire Code

The Uniform Fire Code (UFC) contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The UFC contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards (as set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise building, and fire suppression training.

Local

City of Sacramento 2030 General Plan Policies

PHS 2.1.11 Development Fees for Facilities and Services. The City shall require development projects to contribute fees for fire protection services and facilities.

PHS 2.2.4 Water Supplied for Fire Suppression. The City shall ensure that adequate water supplies are available for fire-suppression throughout the city, and shall require development to construct all necessary fire suppression infrastructure and equipment.

PHS 2.2.5 High-Rise Development. The City shall require that high rise structures include sprinkler systems and on-site fire suppression equipment and materials, and be served by fire stations containing truck companies with specialized equipment for high-rise fire and/or emergency incidents.

Impacts and Mitigation Measures

Threshold of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of the RDSP would result in the following impact that remains significant after implementation of General Plan policies:

- Require or result in the construction of new, or the expansion of existing, facilities related to the provision of fire protection.

Methodology

As noted in Table 3.1, there are 2,350 residential dwelling units that are part of previously-approved developments and 386 existing dwelling units. Because the impacts on fire protection resulting from these developments were previously analyzed in other environmental documents, they are not considered in the project-level analysis; but, they are considered in the cumulative analysis.

In accordance with the 2030 General Plan MEIR, 1 station per 16,000 residents⁴ was used to estimate the number of fire department staff that would be necessary to serve the population generated by full buildout of the RDSP.

The development of new residential units in the RDSP area is anticipated to occur over the life of the plan, to Year 2035, as would the increase in population and the need for new/expanded fire protection services.

Impact 5.8-3	Implementation of the RDSP could result in the need to construct new, or expand existing, facilities related to the provision of fire protection.	
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to the provision of fire protection services to new developments (Page 3.CC-11, General Plan).		
Mitigation/ policies included in General Plan MEIR applicable to project	PHS 2.1.11 Development Fees for Facilities and Services.	
Project significance after mitigation/ policies included in General Plan MEIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.8-3	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

As shown on Table 5.8-2, approximately 10,816 new residents could be generated by the full buildout of the RDSP. Development resulting from full buildout of the RDSP would almost trigger the need for an additional fire station (0.93).

Table 5.8-2			
City of Sacramento Fire Station Needs for RDSP Area			
Development that Could Occur due to RDSP (Residential Dwelling Units)¹	Residents²	Service Level	Ratio of Residents to Service Level
5,408	10,816	1 station per 16,000 residents	0.93
<i>Notes</i>			
1. See Table 3.2			
2. 2.0 persons per household assumed per General Plan			

General Plan Policy PHS.2.1.1 requires the City to maintain and implement its Fire Master Plan, which addresses facility needs. The City is also required, by General Plan Policy PHS 2.1.5, to ensure that development of fire protection facilities keeps pace with development and growth in the City.

As previously noted, the City is actively seeking a larger and more modern facility through the relocation of the existing fire station on North C Street. The site for this new facility has not yet been selected. Goal CS 1c of the proposed RDSP requires provision for the relocation of the existing fire station on North C Street

⁴ City of Sacramento, 2030 General Plan Master Environmental Impact Report, certified March 2009, Page 6.10-21.

to a new location which ideally has access to the 16th Street corridor and meets Fire Department criteria for construction and siting. This policy complies with General Plan Policy PHS 2.1.8, that requires the City to seek to co-locate fire facilities with other City facilities in order to efficiently provide fire services in the dense, urban areas of the City.

New development within the RDSP area would be required to comply with the General Plan policy that requires new development to construct all necessary fire suppression infrastructure and equipment necessary to serve that development.

High rise development is considered to be a structure over seven stories tall. The RDSP would allow such structures in some areas. These structures are required by the City's General Plan (Policy 2.2.5) to include sprinkler systems and be served by fire stations that include truck companies with the necessary equipment for high-rise fire and/or emergency incidents

It is assumed that the population anticipated to be generated by full buildout of the RDSP would be similar to the population assumed for the area of the RDSP in the MEIR because a General Plan Amendment is not necessary and the density of development is essentially the same as assumed in the MEIR.

The General Plan includes policies to address the expansion of facilities to provide fire protection as parcels within the City are developed. As stated on Page 6.10-24 of the MEIR, "because future development anticipated under the 2030 General Plan would be required to comply with the General Plan policies, adequate fire protection services would be provided to serve the anticipated increase in demand. Through the implementation of these policies the proposed project (buildout of the City under the 2030 General Plan) would result in a less-than-significant impact".

The development of new residential units in the RDSP area is anticipated to occur over the life of the plan, to 2035, as would the increase in population and the need for new/expanded fire protection services. As growth occurs over the next 25 years, all development in the RDSP would be required to contribute fees for fire protection services and facilities (General Plan Policy PHS 2.1.11), thereby ensuring that future development pay fees for the increased need for fire protection, including new facilities.

Section 15168(c) of the CEQA Guidelines acknowledges that all of the information necessary to analyze potential impacts associated with anticipated subsequent activities may not be available at the time of preparation of a program EIR. Because the location, size, and type of such a facility are not currently known, it is not possible to determine the impacts resulting from construction and operation of any new or expanded fire facility. The location and timing of new and/or expanded fire facilities would be determined through the continued maintenance of the City's required Fire Master Plan. Subsequent activities in a program EIR must be examined in light of the program EIR to determine whether an additional environmental document must be prepared to analyze potential effects that were not examined in the program EIR.

Implementation of the RDSP could result in the construction of new, or the expansion of existing, facilities related to the provision of fire protection; however, for the reasons discussed above, and per the conclusion of the MEIR, the impact would be *less than significant*.

Mitigation Measure

None required.

Cumulative Impacts

Impact 5.8-4	Implementation of the RDSP ,combined with full buildout of the City in accordance with the 2030 General Plan, could result in the construction of new, or the expansion of existing, facilities related to the provision of fire protection.	
Additional Mitigation for Project	MM 5.8-4	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

As stated in the MEIR for the 2030 General Plan, development in accordance with the General Plan would require new or expanded facilities to house the additional fire staff necessary to serve the growth in population⁵. The proposed amount of development for the RDSP assumed in the MEIR is similar to that anticipated at full buildout of the RDSP. Since certification of the MEIR in March 2009, no projects have been approved that would significantly increase the demand for fire services in the City above the demand assumed in the General Plan MEIR. In addition, no stations have been constructed or expanded.

The development of the required Fire Master Plan to plan for future facilities and the General Plan requirement that the City provide fire protection facilities keep pace with development in the City will ensure that adequate fire facilities are planned for and provided in the RDSP area and the rest of the City. All development in the City is required to contribute fees for fire protection services and facilities (General Plan Policy 2.1.11); thereby ensuring future development pays fees for the increased need for fire protection.

The cumulative impact of development in the General Plan was determined to be *less than significant* and remains so with this project.

Mitigation Measure

None required.

Schools (K through 12)

Environmental Setting

The majority of the RDSP area is located within the Twin Rivers Unified School District (TRUSD), with the exception of 59 acres located within the Sacramento City Unified School District (SCUSD). Approximately 92 school-aged children within the RDSP currently attend schools in the TRUSD, while there are no students currently living within the portion of the RDSP served by the SCUSD.

Kindergarten through Grade 6 students living within the RDSP area attend the Woodlake Elementary School, located three miles east of the RDSP area. Grades 7 through 8 attend Rio Tierra Junior High School, approximately 6 miles north of the Plan area. Grades 9 through 12 attend Grant Joint Union High School,

⁵ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Page 6.10-12.

approximately 5 miles north of the RDSP. There is one charter school in the RDSP area, the Smythe Academy of Arts and Science, for Grades 7 and 8 students.

Regulatory Context

Federal

There are no federal policies that are directly applicable to the Proposed Project for the provision of kindergarten through high school educational facilities.

State

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998)

SB 50 is a school construction funding measure that was approved on the November 1998 ballot. The Senate Bill created the School Facility Program for eligible school districts to obtain State bond funds. State funding requires matching local funds that generally come from developer fees, such as those that would be required for development in the RDSP area. The passage of SB 50 eliminated the ability of cities and counties to require full mitigation of school impacts and replaced it with the ability for school districts to assess fees directly to offset the costs associated with increasing school capacity as a result of new development. Although SB 50 states that payment of developer fees are "deemed to be complete and full mitigation" of the impacts of new development, fees and State funding do not fully fund new school facilities.

Local

City of Sacramento 2030 General Plan Policies

There are no General Plan policies related to the provision of school facilities that are applicable to individual development projects.

School Districts' Facilities Master Plans

Both the TRUSD and SCUSD have facilities master plans for strategic planning regarding the construction and funding of district facilities. The plans include demographic projections, strategies for pursuit of federal, State, and other funding sources, and provisions for facility capacity options and alternatives.

Impacts and Mitigation Measures

Threshold of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of the RDSP would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- Generate students that would exceed the design capacity of existing or planned schools that would result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts.

Methodology

As noted in Table 3.1, there are 2,350 residential dwelling units that are part of previously-approved developments and 386 existing dwelling units. Students generated by these dwelling units in the RDSP are not considered in the potential number of students because the impacts to schools resulting from students generated by these dwelling units were previously analyzed in other environmental documents. They are not considered in the project-level analysis, but they are considered in the cumulative analysis.

In accordance with the 2030 General Plan MEIR, the following student generation rates were used to estimate the number of students generated at full buildout of the RDSP.

Table 5.8-3			
Student Generation Rates			
Grade	Generation Rate	Residential Dwelling Units that Could Occur due to the RDSP¹	Number of Students²
K through 6	0.22	5,408	1,190
7 through 8	0.108	5,408	584
9 through 12	0.118	5,408	638
Total			2,412
<i>Notes:</i>			
1. See Table 3-2			
2. Number rounded			

Impact 5.8-5	Implementation of the RDSP would generate new students that would exceed the design capacity of existing or planned schools and could result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts.		
There are no policies specific to the Central City Community Plan that supplement the Citywide General Plan policies related to the provision of schools to new developments (Page 3.CC-11, General Plan).			
Mitigation/ polices included in General Plan MEIR applicable to project	None		
Project significance after mitigation/ policies included in General Plan MEIR	<i>Less than Significant</i>		
Additional Mitigation for Project	MM 5.8-5	<i>None required.</i>	
Residual Significance	<i>Less than Significant</i>		

As shown in Table 5.8-3, buildout of the proposed RDSP would generate an estimated 2,412 students

The proposed RDSP would not require a General Plan Amendment and the density of development is essentially the same as assumed in the MEIR for the General Plan. For this reason, it is assumed that the number of students assumed to be generated by full buildout of the RDSP would be similar to the number of students assumed for the area of the RDSP in the MEIR.

As shown in Table 5.8-3, approximately 2,412 students could be generated by the development of the RDSP at full buildout. The development of new residential units in the RDSP area is anticipated to occur over the life of the plan, to Year 2035, as would the increase in student population.

The increase in students resulting from the development of proposed residential land uses within the RDSP area may necessitate the development of new or physically altered school facilities. There are currently no provisions for new or expanded school facilities in the RDSP; however, future planning efforts could result in school or another charter school within the RDSP boundary. Because the location, type, and size of a new school is not currently known, and it is not currently known whether the charter school located within the RDSP would be expanded to serve the new students generated by the Plan, it is not currently possible to determine the impacts resulting from construction and operation of any new or expanded facility. The location and timing of new and/or expanded school facilities would be determined through the preparation of each of the two districts' facilities master plans. The environmental review of such facilities would be undertaken by the school districts.

General Plan Policy ERC 1.1.4 requires the City to work with school districts to explore the location of schools on sites in urban areas that may be smaller or different from sites usually considered by school districts.

The payment of statutory fees by developers under SB 50 serves as complete mitigation, as set forth in CEQA, to satisfy the impact of development on school facilities. New development within the RSDP area would be required to pay a fee, per SB 50, toward the provision of school facilities. In addition, Policy 1.1.11 of the General Plan requires the City to assist school districts with school financing planning and methods to provide permanent schools in existing and newly developing areas in the City.

For the above reasons, although implementation of the RDSP would generate additional elementary, middle, and high school students in the RDSP area, the impact is considered ***less than significant***.

Mitigation Measure

None required.

Cumulative Analysis

Impact 5.8-6	Implementation of the RDSP combined with other development within the seven school districts that serve the City, would generate additional elementary, middle, and high school students.	
Additional Mitigation for Project	MM 5.8-6	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

As stated in the 2030 General Plan MEIR, development in accordance with the General Plan would require new elementary, middle, and high schools throughout the City to meet the anticipated demands (Page 6.10-41, MEIR). Because the density of development assumed for the RDSP area in the General Plan is essentially the same as proposed for the RDSP, it can be assumed that full buildout of the RDSP, in addition to other development within the City and existing residences, would generate the need for new or physically altered school facilities. The construction/alteration of these new facilities could result in significant environmental impacts.

The cumulative impacts resulting from construction and expansion of school facilities was determined to be less than significant in the MEIR (Page 6.10-42). This determination was based on policies related to the provision of school facilities in the General Plan, as well as SB 50, which states that the payment of statutory fees by developers serves as complete mitigation, as set forth in CEQA, to satisfy the impact of development on school facilities. In addition, as previously stated, the environmental review for new school facilities would be required by the school district proposing the new facility.

The cumulative impact of development in the General Plan was determined to be ***less than significant*** and remains so with this project.

Mitigation Measure

None required.

5.9: PUBLIC UTILITIES

Chapter 5.9

Public Utilities

The information in this chapter about public utilities (water supply, sewage disposal and treatment, storm drainage) describes the existing utilities within the River District Specific Plan (RDSP) area, calculates the anticipated additional demand at full buildout of the RDSP, and determines the demand in relation to the planned buildout of the RDSP area assumed in the City's 2030 General Plan RDSP area and the proposed Specific Plan policies related to energy conservation.

Energy for the RDSP area would continue to be provided by SMUD and PG&E. Both utilities are bound by State-regulated public utility contracts to ensure their respective systems meet demand. SMUD and PG&E would be responsible for the environmental review and clearance under CEQA at the time of obtaining necessary permits for installation/construction of expanded or new facilities. The expansion of energy facilities is a necessary consequence of growth and development. The provision of energy for individual development projects within the City is not analyzed for environmental effects because the expansions of existing energy facilities are beyond the authority of the City. For this reason, this chapter does not address the potential impacts of the proposed RSDP due to the provision of energy. However, this chapter does discuss the proposed project's measures to reduce the overall energy demands of projects implemented as part of the RDSP.

The City's Master EIR examined impacts of buildout of the General Plan on solid waste facilities. The analysis determined that the remaining capacity and anticipated lifespans of the two landfills that accept the City's solid waste were sufficient to accept the solid waste anticipated at full buildout of the City's General Plan.¹ Because the proposed RDSP does not require a General Plan amendment and would result in less dense development than currently allowed for the area, it is assumed that the project would not result in impacts from the disposal of solid waste not previously considered in the MEIR and; therefore, this chapter does not address the potential impacts due to implementation of the RDSP.

The MEIR for the 2030 General Plan analyzed impacts on telecommunications (telephone and cable television) due to full buildout of the City in accordance with the General Plan. Because the planning and provision of such services is under the control of private entities, the expansion of services for telecommunications is beyond the authority of the City. For this reason, this chapter does not address the potential impacts due to implementation of the RDSP.

The Township 9 (T-9) project area lies within the RDSP area. The T-9 project required new water, sewer, stormdrainage, and energy facilities. Those facilities were sized and designed to serve only the T-9 project and are not considered in these analyses.

Information for these analyses was obtained from the City's 2030 General Plan, the General Plan MEIR, the EIR for the Township 9 project, the Water Supply Assessment prepared for the RDSP, the Sacramento Municipal Utility District (SMUD), and the Pacific Gas and Electric Company (PG&E).

The 2030 General Plan MEIR, in particular Chapter 6.11 Public Utilities, is hereby incorporated by reference.

A comment from the Sacramento Regional County Sanitation District (SCRCSO) was received in response to the NOP to remind the City that the total wastewater flow that can be discharged to the City Interceptor is

¹ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Page 6.11-75.

108.50 million gallons per day (MGD). The SCRCSD stated that it is the City's responsibility to ensure that the additional flows from the RDSP project to not exceed the established limits. This issue is addressed in Impact 5.9-2.

For discussions of flooding and water quality, please see Chapter 5.5 of this Draft EIR. This chapter analyzes the impacts to the stormdrainage system.

Water Supply and Infrastructure

Environmental Setting

The City has surface water rights to divert both Sacramento and American River water. In addition, the City and the US Bureau of Reclamation (USBR) have a contract that controls the amount of water that can be diverted from the two rivers. In return, the contract requires the USBR to make enough water available in the two rivers for the agreed-upon diversions by the City. The City's water rights in conjunction with the USBR contract provide the City with a reliable and secure water supply.²

Approximately 10 to 20 percent of the City's water supply comes from groundwater.³ The City is signatory to two groundwater management plans that commit to not exceed the long-term sustainable yield of the groundwater basins. There are no municipal wells within the RDSP area.⁴

The City has two water treatment plants. The plant that serves the RDSP is located within the Specific Plan area on Bercut Drive, south of Bannon Street. Water from the Sacramento River is diverted to the plant. The capacity of the plant is 160 million gallons per day (mgd). In 2002-2003 the plant treated an average of 56.8 mgd.⁵

The City provides the facilities to transmit treated water. An existing water supply infrastructure is in place throughout the Specific Plan area. The City currently has three water transmission mains (pipes larger than 12 inch) that serve the Specific Plan area: a 24-inch main in Bercut Drive, 36-inch main in North B Street, and 42-inch main in 18th Street.

Regulatory Context

Federal Regulations

There are no federal regulations that are directly applicable to the Proposed Project for the provision of potable water.

² City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Page 6.11.7.

³ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Page 6.11.6.

⁴ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Figure 6.11-2.

⁵ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Page 6.11-5.

State Regulations

SB 610/SB 221 (2002)

Senate Bills 610 and 221 require specific information about water availability be considered by land use agencies during the processing of projects that include more than 500 residential units, or that would result in water demand that is equivalent to 500 residential units.

Water Conservation in Landscaping Act, California Government Code Section 65591

The Act requires local agencies to adopt an ordinance based on the provisions of the updated model water efficient landscape ordinance issued by the California Department of Water Resources.

California Assembly Bill 2572 (Chapter 884) (2004)

The Bill requires the installation of water meters for all new residential and commercial buildings.

Local Regulations

City Code Chapter 15.92 Water Efficient Landscape Requirements

New landscape projects and rehabilitated landscape projects with a landscape area equal to or greater than two thousand five hundred (2,500) square feet are required to install water-efficient landscapes.

City of Sacramento 2030 General Plan Policies

The following General Plan policies would apply to developments within the proposed RDSP area.

U1.1.12 Impacts to Environmentally Sensitive Lands. The City shall locate and design utilities to avoid or minimize impacts to environmentally sensitive areas and habitats.

U1.1.6 Growth and Level of Service. The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

U 1.1.7 Infrastructure Finance. The City shall develop and implement a financing strategy and assess fees to construct needed water, wastewater, storm drainage, and solid waste facilities to maintain established service levels and to mitigate development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development). The City shall also assist developers in identifying funding mechanisms to cover the cost of providing utility services in infill areas.

U2.1.9 New Development. The City shall ensure that water supply capacity is in place prior to granting building permits for new development.

U 2.1.13 Landscaping. The City shall continue to require the use of water-efficient landscaping in all new development.

Impacts and Mitigation Measures

Thresholds of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of the RDSP would result in the following impact that remains significant after implementation of General Plan policies:

- Result in the determination that adequate capacity is not available to serve the project’s demand in addition to existing commitments or
- Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

Methodology

The MEIR for the General Plan used a series of formulas to estimate the water demand at full buildout of the 2030 General Plan. These demand figures are based on acreage, rather than land use types. The proposed density of development in the RDSP area is compared with the development assumptions for the area in the General Plan.

The potential for impacts to the environment resulting from the installation of the proposed backbone infrastructure is analyzed in the various technical chapters of this DEIR.

Impact 5.9-1	Implementation of the RDSP could result in an increase in demand for potable water in excess of the City’s existing diversion and treatment capacity and could require the construction of new water supply facilities.	
	Central City Community Plan Area is not an area of the City that would generate more or additional demand for treated water than the remainder of the area covered by the General Plan (MEIR, Page 6.11-40)	
Mitigation/policies included in General Plan EIR applicable to project	General Plan Mitigation Measure 6.11-2 (a) (b) U1.1.6 Growth and Level of Service U2.1.9 New Development U 2.1.13 Landscaping	
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.9-1	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

The MEIR for the General Plan used a series of formulas to estimate the water demand at full buildout of the 2030 General Plan. These demand figures are based on acreage, rather than land use types. The proposed land uses in the RDSP are anticipated to result in less dense development than the development assumed for the Specific Plan area in the General Plan. The majority of the RDSP is designated as either Urban Center High or Urban Center Low in the General Plan, which allow development ranging from 20 units per net acre to 250 units per net acre. Although the proposed RDSP would not amend these General Plan designations,

the proposed Design Guidelines for the RDSP would limit the amount of development allowed on parcels through floor area ratios and height restrictions. For this reason, the density of development per acre allowed within the RDSP area would be less than allowed in the 2030 General Plan; and therefore, the amount of water demand at full buildout of the Specific Plan is anticipated to be less than under the General Plan.

As shown in the table below, development of the proposed RDSP could result in an increased projected water demand of approximately 215.45 acre feet over existing conditions (see Table 5.9-1). According to the WSA, prepared by the City’s Department of Utilities, the projected water demand for the project location is included in the City’s 2005 Urban Water Management Plan (the most current), adopted November 14, 2006. Also, as stated in the WSA, there are sufficient water supplies to serve the Proposed Project during normal, single dry, and multiple dry years over a 20-year period.

Table 5.9-1					
Projected Water Demand of the RDSP Area					
Compared to Development in Accordance with the Current Zoning of the RDSP Area					
		Proposed RDSP		Current Zoning¹	
Type of Development	Demand Factor (acre feet per acre)	Acres	Total Demand (acre feet)	Acres	Total Demand (acre feet)
Residential – Low and Medium Density	3.60	5.00	18	4.5	16.2
Residential – High Density	4.00	139.00	556	2.34	9.36
Commercial/ Retail	3.00	10.33	30.99	5.74	17.22
Office	3.00	16.58	49.74	19.51	58.53
Light Industrial	4.00	0	0	114.78	459.12
Hotels	4.00	22.86	91.44	12.08	48.32
Parks and Recreation	4.20	31.0	130.2	16	67.2
Subtotal			876.37		675.95
Losses = 7.5% of subtotal			65.73		50.70
Total Demand			942.10		726.65
<i>Note:</i>					
<i>1. These two columns show the water demand from the existing development within the RDSP boundary.</i>					
<i>Source: Water Supply Assessment for River District Specific Plan (see Appendix F)</i>					

As previously noted, although the City has a sufficient water supply to serve full buildout of the General Plan, there is not currently enough capacity to divert and treat the water.⁶ To address this issue, several proposed General Plan policies call for the City to plan and provide reliable water service to serve all residents. The General Plan has policies that ensure that development does not outstrip the availability of adequate water diversion and treatment capacity to meet the water demand for such development. General Plan Policy U.2.1.3 requires the City to plan, fund, and provide water treatment infrastructure to meet projected water demands. New development is required to provide adequate facilities or pay its fair share of the cost of new

⁶ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Page 6.11-33.

facilities to provide service to accommodate growth without adversely impacting current service levels (General Plan Policy U.1.1.6). General Plan Policy U.2.19 requires that water supply capacity and infrastructure are in place prior to granting building permits for new development. In compliance with General Plan Policy U 1.1.7, the proposed RDSP Public Facilities Financing Element would determine the fees that must be paid by each developer as their fair share of the infrastructure costs, to include wastewater treatment.

The City would improve and expand the capacities of the facilities for diversion and treatment of water through capital improvement programs. The City adopted Mitigation Measure 6.11-2 (a) (b) as part of the 2030 General Plan to require the City to reduce any potentially significant impacts due to construction/ implementation of any additional diversion and treatment facilities to less-than-significant levels, to the extent feasible.⁷ Mitigation Measure 6.11-2 (a) and (b) in the 2030 General Plan acknowledges that future potable water supply facilities have not yet been approved or constructed. Therefore, the mitigation requires the City to develop measures to reduce any potentially significant impacts due to construction/ operation of any facilities to less-than-significant levels, to the extent feasible.⁸ As noted on Page 6.11-38 of the MEIR for the General Plan, the impact related to the provision of potable water for the City is significant and unavoidable because the facilities are not currently in place to serve the City at full buildout. The City Council adopted a Statement of Overriding Considerations for this impact when they approved the General Plan in March 2009.

Although the City has a reliable long-term water supply, many programs are enacted by the City to conserve water use. Water conservation is important both in reducing overall demand on the water supply and reducing outflows of wastewater to the sanitary system. These programs are in addition to State regulations regarding lessening water use. Some of these are State mandated measures, such as California Assembly Bill 2572 (2004) (Chapter 884) that requires the installation of water meters for all new residential and commercial buildings.

The City is a member of the Sacramento Water Forum, a regional water planning effort. The Water Conservation Element of the Water Forum Agreement requires the signatory agencies to develop and implement a water conservation plan that includes Best Management Practices.

In addition, the City's Building and Construction Code (Chapter 15.92), requires the installation of water efficient landscaping that is at least as effective in conserving water as the State's model ordinance. The City's General Plan includes a project-level policy (U2.1.13) designed to conserve water through the requirement of water-efficient landscaping in all new development.

In addition to the above requirements, the RDSP proposes policies designed to reduce overall water consumption through conservation techniques:

Policy I 1a a: Encourage the installation of techniques such as bio-swales, permeable pavement and greywater systems to reduce stormwater runoff.

Policy I 1b: Encourage the installation of techniques such as water conserving appliances and low-flow fixtures in buildings to reduce water consumption.

Policy I 1c: Require water conservative irrigation methods in all landscaping plans.

Policy I 1d: Encourage landscaping plans to limit the use of turf and utilize drought resistant plantings.

⁷ City of Sacramento, 2030 General Plan Master Environmental Impact Report, certified March 2009, Page 6.11-38.

⁸ City of Sacramento, 2030 General Plan Master Environmental Impact Report, certified March 2009, Page 6.11-38.

As previously noted, it is anticipated that the potable water demand resulting from full buildout of the RDSP area would be less per acre overall than the amount of development that is currently allowed in the General Plan and, in addition, the City's Department of Utilities determined that there was sufficient water to supply the development proposed for the RDSP area. The City Council adopted a Statement of Overriding Considerations for the potential impacts related to the need to construct new water supply facilities when they approved the General Plan.

The potential impact related to water supply for the RDSP was previously considered and mitigated to the extent feasible through the processing of the City's MEIR. The City's Urban Water Management Plan provided the water use assumptions for the General Plan. The RDSP does not propose land uses that could result in a greater demand for treated water than the land uses assumed for the project area in the Urban Water Management Plan.

The potential impact related to water supply for the RDSP was previously considered and mitigated to the extent feasible through the processing of the City's MEIR. The City Council adopted a Statement of Overriding Considerations for the potential impacts related to the need to construct new water supply facilities when they approved the General Plan.

For these reasons, it is determined that the impact related to water supply for the proposed RDSP is *less than significant*.

Sewage Disposal and Treatment Combined Sewer System

Environmental Setting

The majority of the River District Specific Plan area is currently served by separate storm and sewer systems. The Sacramento Regional County Sanitation District (SRCSD) provides wastewater collection and treatment for the portion of the RDSP area served by the separate sewer system. Wastewater is conveyed to the Sacramento Regional Wastewater Treatment Plant (SRWTP) (see the discussion of storm drainage facilities in this chapter for the separate storm drainage facilities).

About 20-percent of the RDSP area is served by a combined sanitary sewer system (CSS), which conveys both sewer and drainage flows in the same pipe network to the SRWTP. This area includes the portion of the RDSP area east of 16th Street and an area approximately bordered by Dos Rios Street, North 11th Street, south of an extension of Bannon Street to Dos Rios Street, and south to the RDSP boundary.⁹

Within the area served by the CSS, during dry weather and small storm events, combined flows are conveyed to Sump 2A, located on Riverside Drive, which pumps up to 60 million gallons per day (mgd) of combined wastewater to the SRWTP. During storm events, when CSS flows are greater than 60 mgd, the excess flows are routed to the Combined Wastewater Treatment Plant (CWTP) and Pioneer Reservoir for storage. If flow volume exceeds storage capacity, City operators release flows to the Sacramento River after primary treatment. If the treatment capacity of the SRWTP, CWTP and Pioneer Reservoir and the hydraulic capacity of Pioneer Reservoir is exceeded, additional CSS flows are discharged directly into the Sacramento River. The capacity of the CSS is constrained by the terms of a directive under a National Pollutant Discharge Elimination System (NPDES) permit.

⁹ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Figure 6.11-4.

A portion of the RDSP area is currently in the North Bannon Street Trunk Sewer District. This district was established to allow parcels within the District, upon payment of a fee, to connect to the sewer lines operated by the SRCSD. At the time the District was established, the parcels were on septic tanks. As these parcels are redeveloped, the septic tanks would be abandoned and the new development connected to the wastewater collection system.

The SRWTP is currently permitted to treat an average dry weather flow of 181 mgd and a daily peak wet weather flow of 392 mgd. The majority of the treated wastewater is discharged into the Sacramento River. Currently, the ADWF is approximately 165 mgd. For the year 2020, the ADWF is projected to be 218 mgd.¹⁰

Because flows in the areas served by the sanitary sewer system and the CSS (under normal conditions) flow to the SRWTP, the change in the area served by the CSS in the RDSP area would not result in changes in flows to the wastewater treatment plant from the Specific Plan area.

Regulatory Context

Federal

There are no federal regulations that are directly applicable to the Proposed Project related to wastewater collection and treatment.

State

There are no State regulations that are directly applicable to the Proposed Project related to wastewater collection and treatment.

Local

City of Sacramento 2030 General Plan Policies

U1.1.12 Impacts to Environmentally Sensitive Lands. The City shall locate and design utilities to avoid or minimize impacts to environmentally sensitive areas and habitats.

U1.1.6 Growth and Level of Service. The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

U 1.1.7 Infrastructure Finance. The City shall develop and implement a financing strategy and assess fees to construct needed water, wastewater, storm drainage, and solid waste facilities to maintain established service levels and to mitigate development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development). The City shall also assist developers in identifying funding mechanisms to cover the cost of providing utility services in infill areas.

¹⁰ City of Sacramento, *2030 General Plan Master Environmental Impact Report*, certified March 2009, Page 6.11-49.

Thresholds of Significance

For the purposes of this EIR, an impact is considered significant if construction and/or implementation of the RDSP would result in the following impacts that remain significant after implementation of General Plan policies:

- Result in the determination that adequate capacity is not available to serve the project’s demand in addition to existing commitments or
- Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

Methodology

The MEIR for the General Plan used a series of formulas to estimate the water demand at full buildout of the 2030 General Plan. The demand figures are based on acreage, rather than land use types. The General Plan accounted for the increase in population density for developments such as the RDSP. The proposed density of development in the RDSP area is compared with the development assumptions for the area in the General Plan.

The potential for impacts to the environment resulting from the installation of the proposed backbone infrastructure was based on the analyses in the technical chapters of this DEIR.

Impact 5.9-2	Implementation of the RDSP could require expansion of wastewater treatment facilities.	
	Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the wastewater treatment facilities than area covered by the General Plan (Page 3-CC-10).	
Mitigation/ polices included in General Plan EIR applicable to project	General Plan Mitigation Measure 6.11-2 (a) (b) U1.1.6 Growth and Level of Service. U 2.1.13 Landscaping	
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.9-2	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

The SRWTP is owned and operated by the Sacramento Regional Community Service District (SRCSD) and provides sewage treatment for the cities of Sacramento and Folsom. The City of Sacramento would own and maintain the sewerage facilities that collect wastewater from the RDSP and convey it to a SRCSD-maintained regional interceptor that conveys the flows to the SRWTP. As indicated in the SRCSD’s response to the NOP, the 30-inch diameter Sump 82 force main interceptor is located parallel to North 18th Street, within the RDSP boundary. As indicated by the SRCSD and the City’s Department of Utilities, the City is allowed to discharge only 60 mgd from this service area.

As noted in the MEIR for the 2030 General Plan, an expansion of the SRWTP from 181 mgd ADWF to 218 ADWF is anticipated to accommodate projected demands from all contributors through Year 2020. This

increase is necessary to serve both the City and areas outside of the City. An EIR was certified that evaluated the environmental effects of expanding the plant capacity to 218 ADWF. It was determined that a significant and unavoidable impact associated with construction-related air emissions would result. All other impacts were determined to be less-than-significant or could be mitigated to a less-than-significant level through implementation of mitigation.¹¹

In June 2004, the SRCSD Board of Directors certified the EIR for the SRWTP 2030 Master Plan, which assumed a peak sewage flow of approximately 8.5 mgd for the RDSP area. Since the preparation of the Master Plan, the assumptions used to project flows have changed. Currently, at buildout, the land uses and densities assumed for the River District Specific Plan are anticipated to generate a peak sewage flow of 4.72 mgd. If the entire RDSP area is included in the flow calculations, the peak flow amount is 5.27 mgd; however, as the area generally east of 12th Street will continue to flow to the CSS system, it is more accurate to use a flow of 4.72 mgd.

In order to reduce flows to the CSS, drainage facilities would be constructed in the portion of the RDSP served by the CSS. These facilities would reduce the wet weather flows entering the combined system; however, new development, or redevelopment, within this area would connect to the CSS and could result in net increase in flows to the system.

The following proposed RDSP policies would reduce wastewater flows to the treatment plants (for both the separated and combined systems) through water conservations measures and the installation of storm drainage facilities to reduce runoff.

Policy I 1a: Encourage the installation of techniques such as bio-swales, permeable pavement and greywater systems to reduce stormwater runoff.

Policy I 1b: Encourage the installation of techniques such as water conserving appliances and low-flow fixtures in buildings to reduce water consumption.

Policy I 1c: Require water conservative irrigation methods in all landscaping plans.

As previously noted, it is anticipated that the wastewater flows resulting from full buildout of the RDSP area would be less than the amount that was currently assumed in the Year 2030 planning for the SRWTP. For this reason, the potential impact related to wastewater treatment for the RDSP was previously considered and mitigated to the extent feasible through the processing of the City's MEIR. The RDSP does not propose land uses that could generate more wastewater flows than the land uses assumed for the project area in the MEIR. The City Council adopted a Statement of Overriding Considerations for a potential impact related to the need to construct wastewater treatment. It was determined that construction-related air emissions during construction of expanded treatment capacity could not be reduced to a less-than-significant level.

Currently, payment of the Combined Sewer Mitigation Fee for any construction that would increase wastewater flows to the system is considered full mitigation of impacts.

For the above reasons, the potential impacts to wastewater treatment facilities related to full buildout of the proposed RDSP would be ***less than significant***.

¹¹ City of Sacramento, 2030 General Plan Master Environmental Impact Report, certified March 2009, Page 6.11-59.

Mitigation Measure

None required.

Storm Drainage

Environmental Setting

As noted in the previous section of this chapter, approximately 20-percent of the RDSP is currently served by the CSS. The potential impacts to the CSS, resulting from future development in the RDSP area, were previously addressed in Impact 5.9-2. This section addresses the potential impacts to the storm water infrastructure that serves the area outside of the CSS.

With the exception of the levees, which are manmade features, the RDSP area is topographically flat. The American and Sacramento Rivers form the northern and western boundaries, respectively. There are no other natural drainages or surface waters occurring within the area. Although there are currently two drainages at the intersection of Richards Boulevard and I-5, they will be re-graded as part of a previously-approved project.

The developed portions of the RDSP area are currently served with storm drainage infrastructure. The City would install the backbone storm drainage system as part of the Proposed Project (see Figure 5.9-1) to upgrade existing facilities and install new facilities in order to reduce the amount of stormwater runoff from the RDSP area. Sump Pump 111 is located at the northern terminus of North 5th Street, within the RDSP area. The proposed improvements to the drainage system within the RDSP area include modifications to this facility to increase efficiency in order to support the new development within the RDSP area. These improvements include a new transformer and larger pump. Stormwater flows from Sump 111 are pumped to the American River, which ultimately flows to the Sacramento River. No improvements to the outfall to the American River are proposed as part of this plan.

In addition, several new common drainage mains would be required to convey flows to two proposed detention basins. These basins would reduce peak flows to Sump 111 and reduce/prevent flooding at key locations within the Plan Area. Some of the existing drainage mains would be abandoned and replaced with lines with greater capacity. The project would construct two drainage basins along Richards Boulevard and two drainage swales.

The separated storm drainage system is regulated by a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permits issued by the Central Valley Regional Water Quality Control Board. This permit requires the use of best management practices intended to meet the standard of reducing pollutants in urban runoff to the maximum extent practicable. The system proposed in the River District area would be consistent with the recently published *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, May 2007.

The State Regional Water Quality Control Board prefers Low Impact Development (LID) that uses site controls that promote infiltration. Runoff from new streets, in addition to new runoff created by widening existing streets, would need to be treated before entering the storm drainage system. As noted in Chapter 5.5, Hydrology and Water Quality, bioswales are proposed in certain medians that would result in some reductions in stormwater flows:

- Seventh Street from North B Street to Richards Boulevard
- New street from Bannon Street to Riverfront Drive
- The proposed Pedestrian/Bikeway
- Richards Boulevard from Bercut Drive to North 16th Street
- North B Street from Bannon Street to 16th Street

Impact 5.9-3	Implementation of the RDSP could require expansion of storm drainage facilities.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the storm drainage facilities than area covered by the General Plan (Page 3-CC-10).		
Mitigation/ polices included in General Plan EIR applicable to project	U 1.1.12 – Impacts to Environmentally Sensitive Lands U 4.1.5 New Development	
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.9-3	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

General Plan Policy 4.1.5 requires that new development within the City prevent on- or off-site flooding. Compliance with this policy will ensure that development of the RDSP area in accordance with the Specific Plan would not result in stormwater runoff that results in flooding. To comply with this policy, new development would be required to ensure that the storm drainage facilities proposed to serve the project have sufficient capacity to convey both the proposed, existing, and planned flows.

The installation of the pipes and construction of the swales and basins for the backbone storm water drainage infrastructure could result physical changes to the environment. For instance, construction equipment would generate short-term increases in traffic and noise to adjacent sensitive receptors. The emissions from some of the construction equipment would include diesel particulates and nitrous oxides, which are air contaminants of concern. Ground disturbing activities generally produce particulate matter. Ground disturbing activities could impact biological resources and result in runoff that could affect the rivers adjacent to the project area. Excavations for the pipes, swales, and basins could result in impacts to cultural resources and encounter contaminated soils.

The potential impacts due to installation of the pipes and other components for the backbone infrastructure are analyzed in the technical sections of this DEIR, in particular the chapters addressing air quality, hazards and hazardous materials, noise and vibration, biological resources, cultural resources, and transportation and circulation. These analyses specifically address the potential impacts related to construction activities within the RDSP area, to include the installation of the backbone storm drainage infrastructure. General Plan Policy 1.1.12 requires the City to design and locate utilities to avoid or minimize impacts to environmentally sensitive areas and habitats.

For these reasons, the potential physical impacts related to the provision of storm drainage facilities for the proposed RDSP would be ***less than significant***.

<i>Water and Wastewater Conveyance/Collection</i>
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Impact 5.9-4	Implementation of the RDSP could generate additional water or wastewater flows that could require the expansion of existing conveyance or collection facilities.	
	Central City Community Plan Area is not an area of the City that would generate more or additional impacts to water or wastewater conveyance/collection facilities than area covered by the General Plan (Page 3-CC-10).	
Mitigation/ policies included in General Plan EIR applicable to project	U 1.1.12 – Impacts to Environmentally Sensitive Lands U 1.1.6 Growth and Level of Service. U 1.1.7 Infrastructure Finance	
Project significance after mitigation/ policies included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.9-4	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

The existing water supply infrastructure is adequate for the current level of development; however, as new development occurs in the RDSP area, an increase in capacity is necessary to support the proposed development. As noted on Page 6.11-40 of the 2030 General Plan MEIR, the backbone water distribution system serving the River District would require expanded capacity, either through upsizing lines or through installation of new lines, to ensure adequate fire flow pressure for new development.

The City currently has three water transmission mains that serve the Specific Plan area: a 24-inch main in Bercut Drive, a 36-inch main in North B Street, and a 42-inch main in 18th Street. Although water supply infrastructure is in place throughout the Specific Plan area and no new transmission mains are proposed to serve the area, there would be new distribution mains (pipes smaller than 12-inches diameter) needed to supply the proposed development. Installation of the required water distribution system would include new 8-inch to 12-inch mains. No new offsite water infrastructure is necessary for the RDSP. The proposed lines would connect to existing infrastructure within the RDSP area.

As part of the approval of the Specific Plan, the City would install the necessary backbone water distribution system to serve future development (see Figure 5.9-2). This system for the Plan Area would consist of an improved grid network of distribution mains within street rights-of-way with connections to the existing transmission and distribution systems. These improvements could be installed by the City in three phases, to reflect the currently anticipated pattern of development within the RDSP area. The costs of these improvements are part of the RDSP Public Facilities Financing Element. General Plan Policy U1.1.6, Growth and Level of Service, requires new development to either fully fund, or pay its fair share of, the cost of facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Implementation of the RDSP would reduce the size of the area served by the CSS to about 15-percent of the RDSP area. This is being done in order to reduce the wet weather flows to the CSS. The reduction of the flows currently being routed through the CSS by routing them through the sanitary sewer system would reduce some of the existing flooding conditions in the Central City; thereby resulting in a beneficial effect to the CSS.

The redevelopment of the portion of the RDSP that remains within the area served by the CCS would connect to this system. In order mitigate the impacts to the CCS from such redevelopment, the applicants would be required to pay the Combined Sewer Mitigation Fee if the development would increase the flows to the system

According to the MEIR for the 2030 General Plan, the River District contains a backbone wastewater collection system that appears to be adequate to support additional development, due in part that the majority of the area is developed, with limited areas of undeveloped land. No significant wastewater collection infrastructure deficiencies were identified within the area.¹²

As shown on Figure 5.9-3, the backbone system necessary to serve the development anticipated from the proposed RDSP would require a new trunk main and local collection mains within street rights of way. It is currently anticipated that the facilities would be installed in three phases; however, the number and/or order of the phases could change as development occurs of the individual parcels within the RDSP area.

General Plan Policy 1.1.12 requires the City to design and locate utilities to avoid or minimize impacts to environmentally sensitive areas and habitats; although, the installation of the pipes for the backbone water and wastewater infrastructure could result in physical changes to the environment. For instance, construction equipment would generate short-term increases in traffic and noise to adjacent sensitive receptors. The emissions from some of the construction equipment would include diesel particulates and nitrous oxides, which are air contaminants of concern. Ground disturbing activities generally produce particulate matter. Ground disturbing activities could impact biological resources and result in runoff that could affect the rivers adjacent to the project area. Excavations for pipes could result in impacts to cultural resources and encounter contaminated soils.

The potential impacts due to installation of the pipes and other components for the backbone infrastructure are analyzed in the technical sections of this DEIR, in particular the chapters addressing air quality, hazards and hazardous materials, noise and vibration, biological resources, cultural resources, and transportation and circulation. These analyses specifically address the potential impacts related to construction activities within the RDSP area, to include the installation of the backbone wastewater infrastructure.

For the above reasons, the impacts related to installation of facilities to convey water and wastewater flows from the RDSP area are ***less than significant***.

Mitigation Measure

None required.

¹² City of Sacramento, 2030 General Plan Master Environmental Impact Report, certified March 2009, Page 6.11-63.

Cumulative

Impact 5.9-5	Implementation of the RDSP, in combination with future development in the City could increase the need for new water treatment facilities, wastewater treatment, and/or storm drainage facilities.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the storm drainage facilities than area covered by the General Plan (Page 3-CC-10).		
Mitigation included in General Plan EIR applicable to project	U 1.1.6 Growth and Level of Service. U 1.1.7 Infrastructure Finance	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.9-5	<i>None required.</i>
Residual Significance	<i>Less than Significant</i>	

As previously noted, the density of development that would be allowed in the Proposed Project area by the RDSP is less than the density for the area that was assumed in the various water supply/treatment, wastewater treatment, and storm drainage planning studies, the combined cumulative impact associated with the project’s incremental effect and the effects of other projects is not significant. For this reason, the cumulative impact is considered *less than significant*.

***Energy
(Electricity and Natural Gas)***

The MEIR for the 2030 General Plan analyzed impacts on electricity and natural gas facilities due to full buildout of the City in accordance with the General Plan. Electricity is provided by the Sacramento Municipal Utility District while PG&E provides natural gas to the RDSP area.

The River District Plan Area is presently served by two 21 kV primary feeders that run east/west along North B Street and Richards Boulevard, originating at SMUD’s North City substation (intersection of 20th Street and North B Street). When fully built-out, development in accordance with the RDSP would have a maximum peak electrical demand of approximately 50 megawatts (MW) and 350 million kilowatt-hours (kWh) of energy per year.¹³ These demands were calculated based, in part, on California Title 24 standards.

SMUD determined that it will be necessary to construct a new substation (21 kV) to serve development in the Plan Area as development increases over the envisioned 25-year period. In addition, SMUD will need additional substation capacity to serve the adjacent Railyards Specific Plan area (approximately 80MW). SMUD’s preference is to combine these capacity requirements into a single substation site. The preferred

¹³ David Brown, P.E., Principal Distribution Systems Engineer, SMUD, written Communication, February 2, 2010.

location of this substation is within a block north or south of North B St., between 4th and 11th Streets. SMUD would likely supply the substation from its 115 kV system located at North City substation located between on North B Street between 20th and 21st Streets.¹⁴

SMUD stated that new facilities for the River District including electrical service to the Railyards Specific Plan area would require approximately 21 kilovolts and 80 megawatts of electricity to meet consumer demand. New utility facilities in the RDSP area would require California Public Utilities Commission (CPUC) approval. At that time, the CPUC would also review any potential environmental impacts and necessary mitigation triggered by the construction of new facilities.

Gas service is provided in the RDSP area by Pacific Gas & Electric (PG&E). The utility company is bound by a State-regulated public utility contract to update its systems to meet additional demand. The existing facilities in the area consist of 4-inch to 16-inch pipelines.

Currently the River District is adequately served by electricity and natural gas utilities. If future development in the River District occurs at the full build-out projected by year 2035, new substations, transmission and distribution facilities would be necessary, both within the RDSP area and outside of the area.

Sustainable Development

The RDSP has the stated goal that the plan area would be a model for sustainable development and that development within the RDSP would meet LEED or similar green building standards, in addition to Sacramento's Smart Growth Principles. Building developments would be designed to save energy, conserve resources, and reduce pollution.

All of the buildings and facilities that would be constructed in the RDSP area must comply with the State Building Standards in Title 24 (California Energy Efficiency Standards). In addition, there is a significant opportunity to further reduce energy use by incorporating additional energy efficiency measures as part of site and building design, such as reducing heat island effects. Encouraging higher density mixed-use development in conjunction with public transportation options represents an energy-savings approach to regional planning and development.

Implementation of the RDSP could result in the construction of new, or the expansion of existing, facilities related to the provision of electricity and natural gas. Section 15168(c) of the CEQA Guidelines acknowledges that all of the information necessary to analyze potential impacts associated with anticipated subsequent activities may not be available at the time of preparation of a program EIR. Because the location, size, and type of new facilities are not currently known it is not possible to determine the impacts resulting from construction and operation of any new or expanded facility. The location and timing of new and/or expanded facilities would be determined by SMUD and PG&E. As part of the development review process, PG&E and SMUD would provide input on proposed projects to ensure their capacity to provide an adequate level of service to the project site.

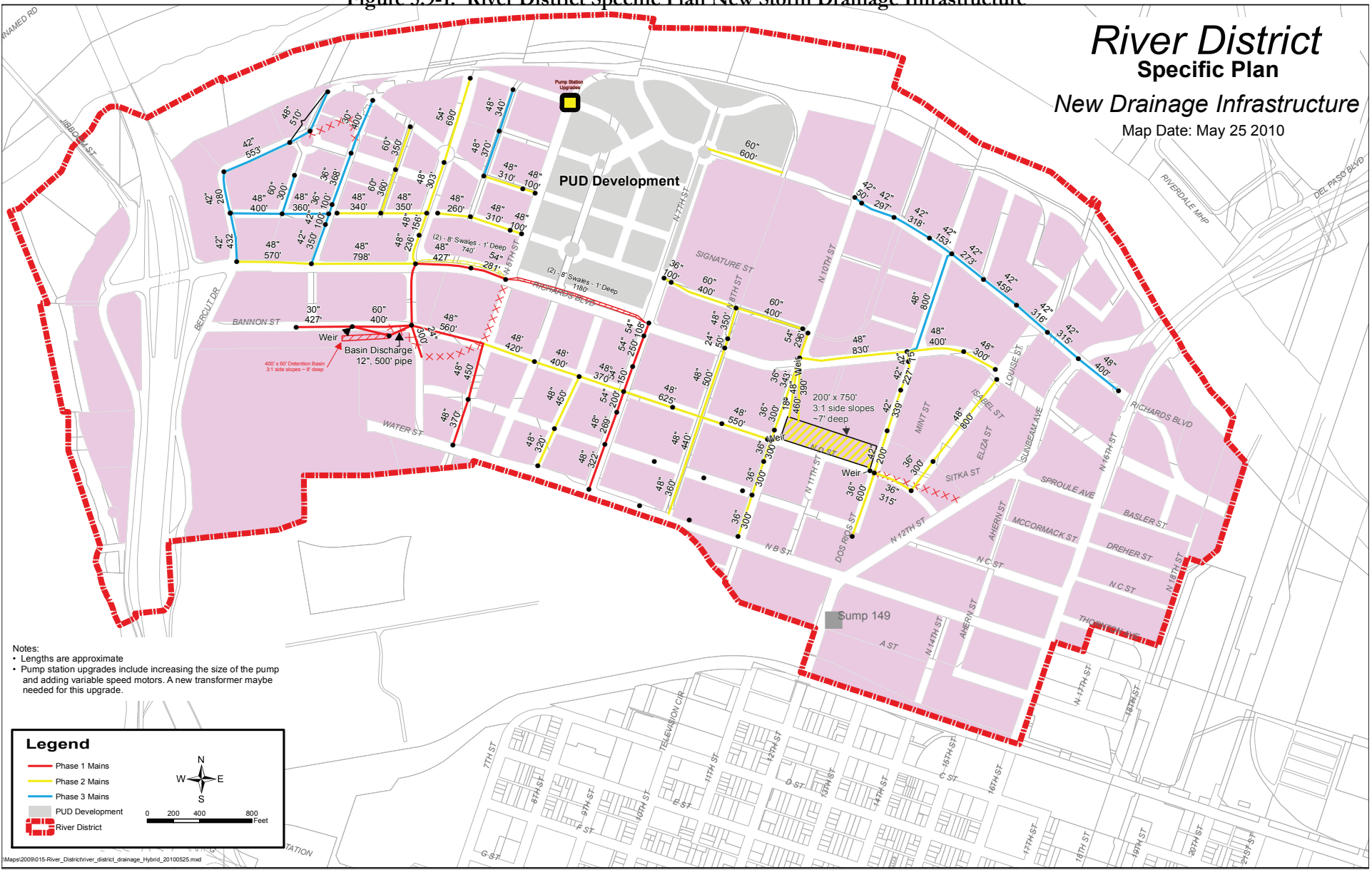
¹⁴ David Brown, P.E., Principal Distribution Systems Engineer, SMUD, written Communication, February 2, 2010.

Figure 5.9-1: River District Specific Plan New Storm Drainage Infrastructure

River District Specific Plan

New Drainage Infrastructure

Map Date: May 25 2010



Notes:

- Lengths are approximate
- Pump station upgrades include increasing the size of the pump and adding variable speed motors. A new transformer maybe needed for this upgrade.

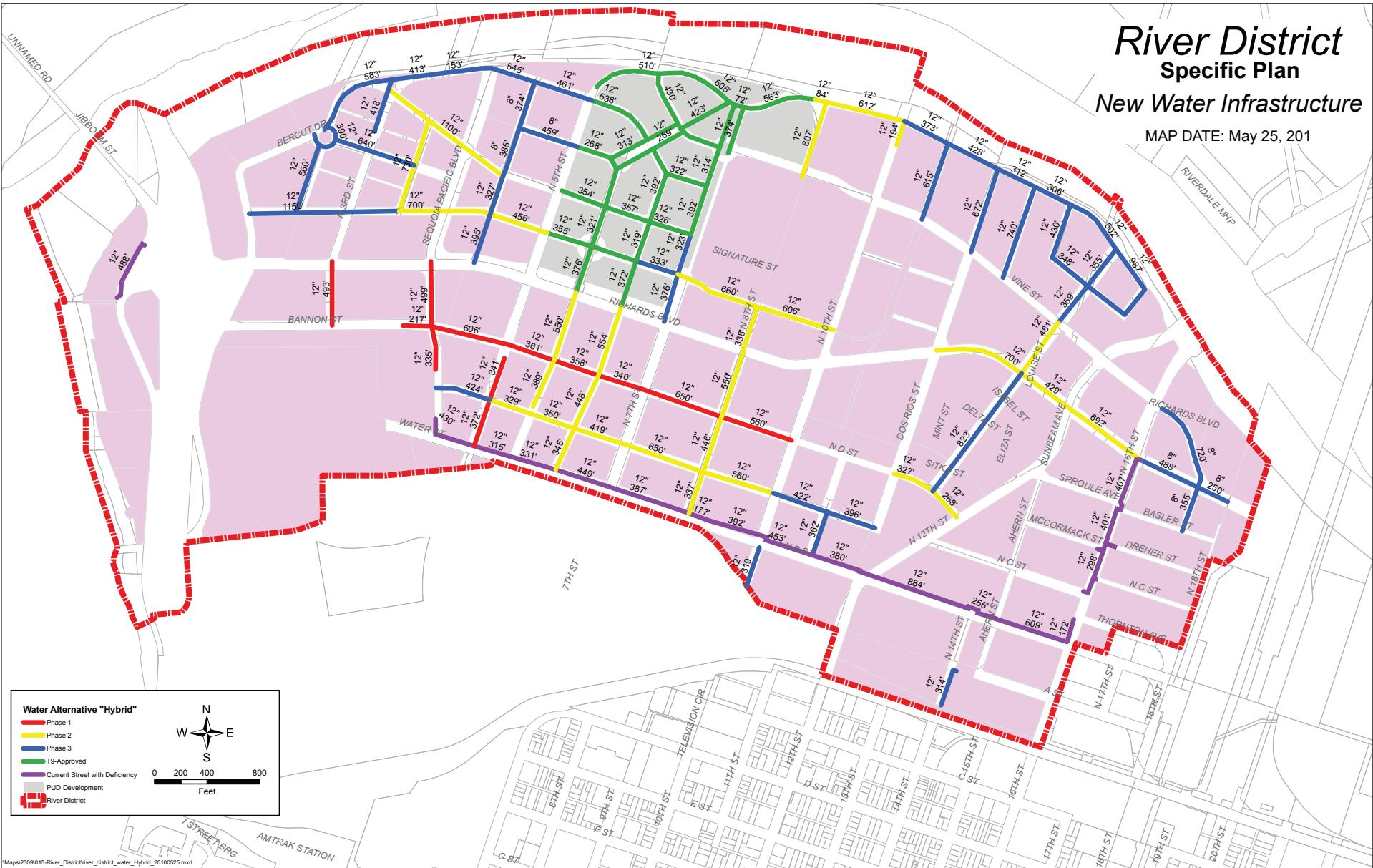
Legend

- Phase 1 Mains
- Phase 2 Mains
- Phase 3 Mains
- PUD Development
- River District

Figure 5.9-2: River District Specific Plan Proposed Water Infrastructure

River District Specific Plan New Water Infrastructure

MAP DATE: May 25, 2011



Water Alternative "Hybrid"

- Phase 1
- Phase 2
- Phase 3
- T9-Approved
- Current Street with Deficiency
- PUD Development
- River District

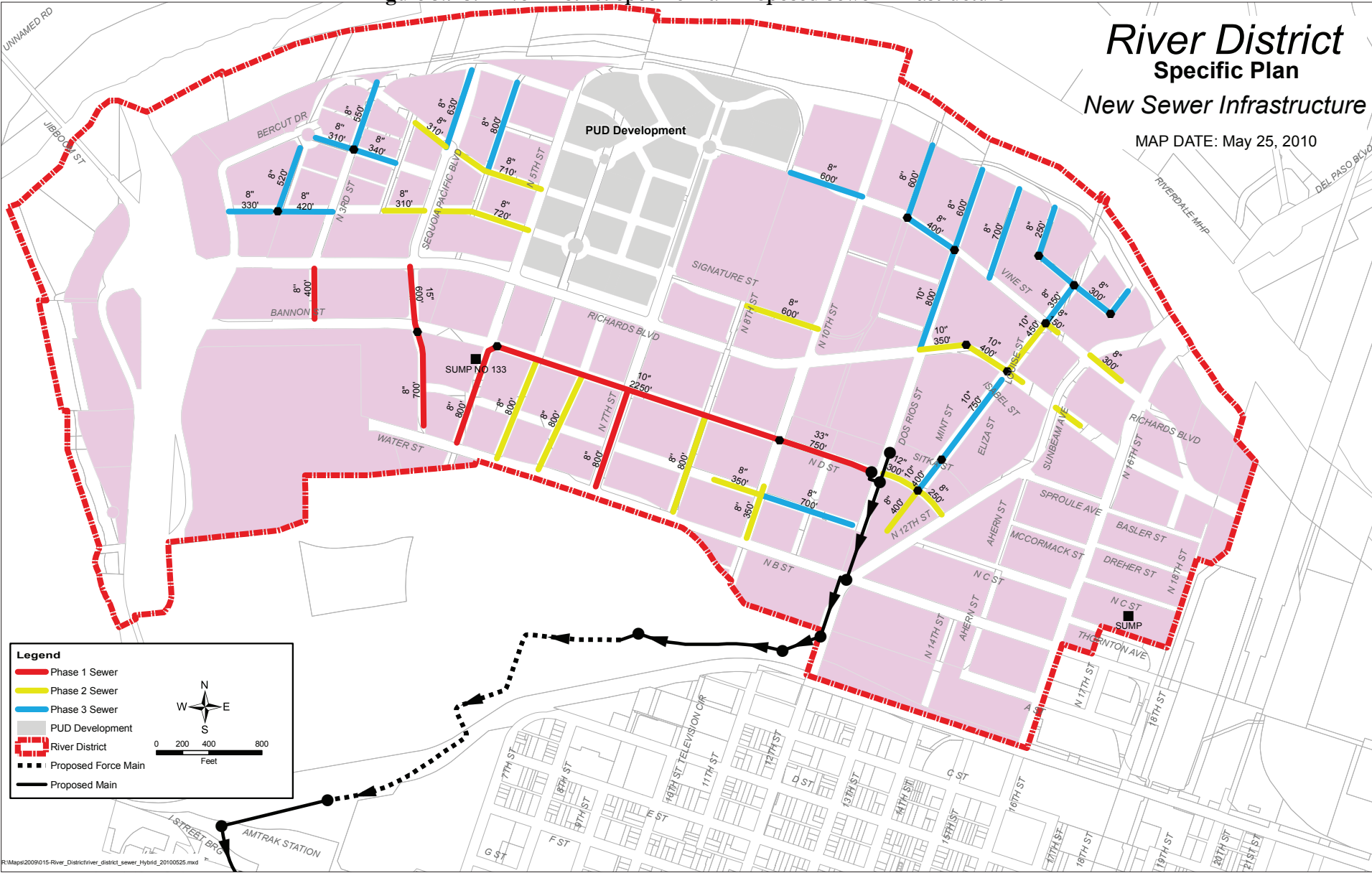
N
W —+— E
S

0 200 400 800
Feet

Figure 5.9-3: River District Specific Plan Proposed Sewer Infrastructure

River District Specific Plan New Sewer Infrastructure

MAP DATE: May 25, 2010



Legend

- Phase 1 Sewer
- Phase 2 Sewer
- Phase 3 Sewer
- PUD Development
- River District
- Proposed Force Main
- Proposed Main

N

W E

S

0 200 400 800
Feet

5.10: TRANSPORTATION AND CIRCULATION

Chapter 5.10

Transportation and Circulation

This section summarizes the effects on the transportation and circulation system resulting from vehicle trips associated with the proposed River Specific Plan (RDSP). A quantitative analysis of weekday a.m. and p.m. commuter hour conditions were conducted for the following conditions:

- Existing Conditions
- Baseline 2015 Conditions
- Cumulative 2035 Conditions

This chapter of EIR discusses Existing, Mid Year 2015 (Baseline) and Cumulative transportation and circulation conditions associated with the RDSP. The transportation discussion prepared by Dowling Associates, Inc. addresses impacts of all conditions identified in the analysis.

Environmental Setting

The existing and planned roadway, transit, bicycle and pedestrian components of the transportation within the study area are described below. A map of the vicinity and existing transportation system is provided in Figure 5.10-1.

Roadway System

Regional Access

Regional vehicular access to the Project area is provided primarily by the freeway system that serves the central areas of Sacramento. Interstate 5 (I-5) is a north-south facility located just west of the Project area. Access to I-5 is provided via Richards Boulevard and I Street, and access from I-5 is provided via Richards Boulevard and J Street. To the south, I-5 provides access to southern portions of the City and County, as well as other Central Valley communities. To the north, I-5 provides access to I-80, northern portions of the City and County, Sacramento International Airport, and other Central Valley communities.

Business Loop Interstate 80 (Business 80), also known as State Route 51 between U.S. 50 and Auburn Avenue, lies approximately one mile east of the Project area. Direct access to Business 80 is provided via State Route 160 (SR 160) and the 12th and 16th Street crossings of the American River. SR 160 provides access to North Sacramento, northeastern portions of the City and County, South Natomas via Northgate Boulevard, and I-80 extending into Placer County.

The east-west U.S. Route 50 (U.S. 50) lies approximately two miles south of the plan area. Access to U.S. 50 is provided primarily via 15th Street and 16th Street. To the east, U.S. 50 serves eastern portions of the City and County and extends into El Dorado County. To the west, U.S. 50 extends via the Pioneer Bridge to West Sacramento and Yolo County.

The existing Project area, located north of Sacramento downtown and the Railyards Specific Plan Area, largely consists of industrial and office land uses. The RDSP area is served primarily by Richards Boulevard, an east-west four-lane arterial that connects I-5 to SR 160, and 7th Street, 12th Street, and 16th Street, which connect the RDSP area to Downtown Sacramento. Seventh Street is primarily a two-lane roadway, and becomes North Seventh Street north of Sacramento Downtown. 12th and 16th Streets are a one-way pair of four-lane roadways designated as SR 160 through the RDSP area.

Other north-south streets within the Project area include Jibboom Street, Bercut Drive, North 3rd Street, North 4th Street, North 5th Street, North 10th Street and Dos Rios Street. Jibboom Street is a two-lane frontage roadway west of I-5 that connects the I Street Bridge in the south, to the Discovery Park across the American River in the north. Bercut Drive, North 3rd Street, North 4th Street, North 5th Street, North 10th Street and Dos Rios Street are two lane local collector roads serving the River District area. East-west roadways within the study area include Bannon Street, North B Street, North C Street, Vine Street, and Basler Street. Bannon Street is a two lane collector road connecting Bercut Drive and North B Street. North B Street traverses parallel to and south of Richards Boulevard, it's width varies from two-lane to four-lane, and connects between Bannon Street to North 16th Street. North C Street, Vine Street, and Basler Street are two lane local roadways serving the River District area.

Access to areas outside the RDSP area is constrained. The American River separates the District from South Natomas located to the north, the Sacramento River separates the District from West Sacramento, and the UP railroad presents a barrier between the District, Downtown and Sutter's Landing.

Existing Transit System

The Sacramento Regional Transit District (RT) is the major transit provider within Sacramento County, providing light rail service and fixed-route bus service on more than 70 routes. Light rail service and many of the bus routes are oriented to the downtown area. Current light rail service extends from the downtown area to the Watt / I-80 station to the northeast, to the Folsom Station to the east, and to Meadowview Station to the south, and light rail lines along 7th and 8th Street connect to the existing depot. Transit schedules are synchronized to provide "timed transfers" between bus routes and light rail at several stations. Many suburban stations include park-and-ride facilities. Light rail operates at 15-minute headways daily and on weekends, and at 30-minute headways during the evening.

Several bus routes currently provide services through the Project area, including 11, 15, 29, and 33. In addition, the Blue Line light rail currently runs along North 12th Street through the Project area.

Amtrak's downtown depot at 4th and I Street is located south of the Project area and provides regional train service. Amtrak operates daily scheduled passenger train service from the downtown station to Richmond-BART-Oakland-San Francisco-San Jose, the San Joaquin Valley, Los Angeles, and Portland-Seattle. Reno-Denver-Chicago service is also available. Connections can be made to locations throughout the United States and Canada.

A number of other transit services connect downtown Sacramento with neighboring communities, providing primarily peak period services designed to accommodate commuter. Such services include:

- El Dorado Transit operates commuter service from Placerville, Shingle Springs, Cameron Park, and El Dorado Hills to Downtown Sacramento.
- Folsom Stage Lines operates commuter transit service from Folsom to Downtown Sacramento.
- Roseville Transit provides commuter service from Roseville to Downtown Sacramento.
- Yolobus operates bus routes connecting to Downtown Sacramento from Davis, Woodland, Winters, and West Sacramento. Yolobus also operates transit service between Downtown Sacramento and the Sacramento International Airport.

- Yuba-Sutter Transit provides commuter transit service from Yuba and Sutter counties to Downtown Sacramento with connections to Regional Transit bus and light rail service.
- The San Joaquin Regional Transit District also provides service to Sacramento from park-and-ride locations in Stockton and Lodi.
- The Solano Transportation Authority provides service from Solano County to downtown Sacramento through its Solano Express Intercity Transit Consortium.

Existing and Planned Pedestrian and Bicycle Facilities

Throughout the RDSP area, pedestrian sidewalks are currently present on both sides of most streets. Pedestrian crossings of major streets are accommodated by pedestrian signals and marked crosswalks at signalized intersections.

A Sacramento City / County Bicycle Task Force developed a 2010 Bikeway Master Plan for the region. Figure 5.10-2 illustrates existing and proposed bikeways in the study area. The Master Plan is a policy document that was prepared to coordinate and develop a bikeway system that will benefit and serve the recreational and transportation needs of the public. Officially designated bicycle facilities are classified as follows:

- Class I Off-street bike trails or paths which are physically separated from streets or roads used by motorized vehicles.
- Class II On-street bike lanes with signs, striped lane markings, and pavement legends.
- Class III On-street bike routes marked by signs and shared with motor vehicles and pedestrians. Optional four-inch edge lines painted on the pavement.

According to City of Sacramento's Existing and Proposed Bikeway map, existing bikeways can be found along the following roadways in the RDSP area:

- Richards Boulevard from Jibboom Street to Vine Street
- North 7th Street from Richards Boulevard to G Street
- North B Street from Dos Rios Street to 7th Street
- Jibboom Street across the American River

In addition, the Sacramento River and American River Bike Trails provide a three-mile scenic Class I bike trail around the west and north sides of the RDSP area ending on its east end at SR 160. Along the eastern boundary of the RDSP area, the Sacramento Northern Bike Trail links the Central City to the area north of the American River.

Based on the planned bikeway map, the American River Bike Trail is proposed to be extended across SR 160 to Sutter's Landing and new trails are proposed through the Railyards Project area to connect proposed to the Sacramento River Trail. In addition, on-street bikeways are proposed along:

- Jibboom Street from Richards Boulevard to the American River Bridge
- North 4th Street from North B Street to the American River Bike Trail
- 5th Street from Downtown to the American River Bike Trail
- 7th Street from Richards Boulevard to the American River Bike Trail
- 9th Street from North B Street to Vine Street
- 10th Street from Railyards Boulevard to the American River Bike Trail
- Dos Rios Street from Richards Boulevard to Vine Street

- Vine Street and Signature Street from North 4th Street to Richards Boulevard
- Bannon Street from Jibboom Street to the Sacramento Northern Bike Trail
- North B Street from 5th Street to Dos Rios Street

Study Area

A set of intersections, street and freeway mainline segments, freeway merge/diverge areas, and freeway ramps were selected for study based upon the anticipated volume and distributional patterns of traffic and known locations of operational difficulty. This selection was made in collaboration with the City of Sacramento and Caltrans staff members. A map of the existing study locations is provided in Figure 5.10-3.

Intersections:

- | | |
|--|---|
| 1. I-5 SB Ramps / Richards Boulevard | 26. Dos Rios Street / Bannon Street (future) |
| 2. I-5 NB Ramps / Richards Boulevard | 27. 12th Street / Bannon Street (future) |
| 3. Bercut Drive / Richards Boulevard | 28. 16th Street / North C Street |
| 4. 3rd Street / Richards Boulevard | 29. 5th Street / North B Street (future) |
| 5. North 4th Street / Richards Boulevard | 30. 7th Street / North B Street |
| 6. 5th Street / Richards Boulevard | 31. 10th Street / North B Street |
| 7. 7th Street / Richards Boulevard | 32. 12th Street / North B Street |
| 8. 10th Street / Richards Boulevard | 33. 14th Street / North B Street |
| 9. Dos Rios Street / Richards Boulevard | 34. Ahern Street / North B Street |
| 10. New Street / Realigned Richards Boulevard (future) | 35. 16th Street / North B Street |
| 11. New 12th Street / Realigned Richards Boulevard (future) | 36. 5th Street / Railyards Boulevard (future) |
| 12. 16th Street / Realigned Richards Boulevard (future) | 37. 7th Street / Railyards Boulevard (future) |
| 13. New Vine Street / Realigned Richards Boulevard (future) | 38. 10th Street / Railyards Boulevard (future) |
| 14. 10th Street / Vine Street | 39. 10 th Street / C Street (future) |
| 15. Vine Street / Richards Boulevard (future Vine St / New St) | 40. 12th Street / C Street |
| 16. Vine Street / New 12th Street (future) | 41. 14th Street / C Street |
| 17. 12th Street / 16th Street / Richards Boulevard (future New Vine St / New St) | 42. 16th Street / C Street |
| 18. 12th Street / Sunbeam Avenue / Sproule Avenue | 43. 7th Street / F Street |
| 19. 16th Street / Sproule Avenue / Basler Street | 44. 10th Street / F Street |
| 20. Bercut Drive / Bannon Street | 45. 14th Street / F Street |
| 21. 3rd Street / Bannon Street (future) | 46. 7th Street / G Street |
| 22. North 4th Street / Bannon Street (future) | 47. 12th Street / G Street |
| 23. 5th Street / Bannon Street (future) | 48. 5th Street / H Street |
| 24. 7th Street / Bannon Street (future) | 49. 6th Street / H Street |
| 25. 10th Street / Bannon Street (future) | 50. 7th Street / H Street |
| | 51. 16th Street / H Street |
| | 52. Jibboom Street / I Street |
| | 53. 5th Street / I Street |
| | 54. 6th Street / I Street |
| | 55. 7th Street / I Street |
| | 56. 3rd Street / J Street |

57. 5th Street / J Street

58. 6th Street / J Street

59. 7th Street / J Street

Street Segments:

1. Jibboom Street south of Richards Boulevard
2. Richards Boulevard east of Bercut Drive
3. Richards Boulevard east of 5th Street
4. Richards Boulevard east of Dos Rios Street
5. Vine Street east of 10th Street
6. 12th Street south of Richards Boulevard (existing and future)
7. 16th Street south of Richards Boulevard
8. 12th Street north of Richards Boulevard (future)
9. 16th Street north of Richards Boulevard (future)
10. Vine Street east of 12th Street (future)
11. Richards Boulevard east of 12th Street (future)
12. Bannon Street east of Bercut Drive (future)
13. Bannon Street east of 5th Street (future)
14. Bannon Street east of 10th Street (future)
15. North B Street west of 7th Street
16. North B Street east of 7th Street
17. North B Street east of 10th Street
18. North B Street east of 12th Street
19. Truxel Bridge (future)
20. North 4th Street north of Richards Boulevard (future)
21. North 4th Street south of Richards Boulevard (future)
22. North 4th Street south of Bannon Street (future)
23. 5th Street south of Richards Boulevard (future)
24. 5th Street south of Bannon Street (future)
25. 7th Street south of Richards Boulevard
26. 7th Street south of Bannon Street (future)
27. 10th Street south of Richards Boulevard
28. 10th Street south of Bannon Street (future)
29. 10th Street south of Railyards Boulevard (future)
30. Dos Rios Street south of Richards Boulevard
31. 12th Street south of North B Street
32. 14th Street south of North B Street (future)
33. 16th Street south of North B Street

Freeway Segments:

1. NB I-5 segment north of J Street off-ramp
2. NB I-5 segment north of L Street on-ramp
3. NB I-5 segment north of I Street on-ramp
4. NB I-5 segment north of Richards Boulevard off-ramp
5. NB I-5 segment north of Richards Boulevard on-ramp
6. SB I-5 segment south of Garden Highway on-ramp
7. SB I-5 segment south of Richards Boulevard off-ramp
8. SB I-5 segment south of Richards Boulevard on-ramp
9. SR 160 Northbound at American River Bridge
10. SR 160 Southbound at American River Bridge

Freeway Merge/Diverge/Weave:

1. NB I-5 P Street to J Street weaving section
2. NB I-5 L Street on-ramp
3. NB I-5 I Street on-ramp
4. NB I-5 Richards Boulevard off-ramp
5. NB I-5 Richards Boulevard on-ramp
6. NB I-5 Garden Highway off-ramp

- | | |
|---------------------------------------|---|
| 7. SB I-5 Garden Highway on-ramp | 10. SB I-5 J Street off-ramp |
| 8. SB I-5 Richards Boulevard off-ramp | 11. SB I-5 I Street to Q Street weaving section |
| 9. SB I-5 Richards Boulevard on-ramp | 12. SB I-5 segment south of J Street off-ramp |

Freeway Off-Ramp Queues:

- | | |
|---------------------------------------|---------------------------------------|
| 1. NB I-5 J Street off-ramp | 3. SB I-5 Richards Boulevard off-ramp |
| 2. NB I-5 Richards Boulevard off-ramp | 4. SB I-5 J Street off-ramp |

Existing Traffic Operations

Traffic Volumes

Turning traffic volumes were observed at the study intersections between January 2009 and October 2009, with a majority of counts collected on January 27-28, 2009, February 3-5, 2009, and a few locations on October 20, 2009. The existing traffic volumes, lane configurations, and traffic controls at study area intersections are shown in Figure 5.10-4. An inventory of traffic controls (signals, stop signs and other traffic controls) was developed for each of the study area intersections, ramps, and street and freeway mainline segments.

Freeway mainline and ramp data were taken from the California Department of Transportation (Caltrans) Traffic and Vehicle Data Systems website, PeMS database (Performance Measurement System, conducted by the Department of Electrical Engineering and Computer Sciences at the University of California at Berkeley, with the cooperation of the California Department of Transportation, California Partners for Advanced Transit and Highways, and Berkeley Transportation Systems). Caltrans data were supplemented by intersection and ramp volume counts conducted during the same period as mentioned above.

Levels of Service

“Levels of service” describe the operating conditions experienced by motorists. Level of service is a qualitative measure of the effect of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort and convenience. Levels of service are designated "A" through "F" from best to worst, which cover the entire range of traffic operations that might occur. Levels of Service (LOS) "A" through "E" generally represent traffic volumes at less than roadway capacity, while LOS "F" represents over capacity and/or forced flow conditions.

The City of Sacramento 2030 General Plan (March 2009) outlines the goals and policies that coordinate the transportation and circulation system with planned land uses. The General Plan calls for a flexible Level of Service (LOS) standard that will support transit, walking, and biking in multi-modal districts; interconnectivity of the transportation network; and support of emerging technologies that promote a balanced transportation system.

The City’s pedestrian friendly Street Standards (adopted in February 2004) provide guidelines on conceptual street standards to enhance and improve the pedestrian environment and encourage alternate mode use in the City of Sacramento. The key elements of the standards are listed below:

- Eliminate rolled curb
- Provide separated sidewalks on all streets
- Reduce widths of collector and arterial streets
- Reduce travel lane widths
- Add bike lanes to all new collector and arterial streets

Signalized Intersections Analysis

Transportation and Circulation

Signalized intersection analyses were conducted using the operational methodology outlined in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 10 and 16).

This procedure calculates an average stopped delay per vehicle at a signalized intersection, and assigns a level of service designation based upon the delay. The method also provides a calculation of the volume-to-capacity (v/c) ratio of the critical movements at the intersection. Table 5.10-1 shows level of service criteria for signalized intersections.

Level of Service (LOS)	Average Delay (seconds/vehicle)	Description
A	≤ 10	Very Low Delay: This level of service occurs when progression is extremely favorable and most vehicles arrive during a green phase. Most vehicles do not stop at all.
B	> 10 and ≤ 20	Minimal Delays: This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	> 20 and ≤ 35	Acceptable Delay: Delay increases due to only fair progression, longer cycle lengths, or both. Individual cycle failures (to service all waiting vehicles) may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	> 35 and ≤ 55	Approaching Unstable Operation/Significant Delays: The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume / capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55 and ≤ 80	Unstable Operation/Substantial Delays: These high delay values generally indicate poor progression, long cycle lengths, and high volume / capacity ratios. Individual cycle failures are frequent occurrences.
F	> 80	Excessive Delays: This level, considered unacceptable to most drivers, often occurs with over-saturation (that is, when arrival traffic volumes exceed the capacity of the intersection). It may also occur at nearly saturated conditions with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.
<i>Source: Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2000, pages 10-16 and 16-2.</i>		

Unsignalized Intersections Analysis

Stop sign controlled intersections were analyzed utilizing the methodology outlined in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 10 and 17). This methodology determines the Level of Service by calculating an average total delay per vehicle for each controlled movement and for the intersection as a whole. A LOS designation is assigned based upon the average control delay of all movements. Table 5.10-2 presents the relationship of total delay to level of service for stop-controlled intersections.

Street Segment Analysis

Selected street segments were evaluated by comparing annual daily traffic volumes to the level of service criteria set forth in the City's Traffic Impact Guidelines. Table 5.10-3 shows level of service criteria for arterial roadways, local streets, and collector streets.

Table 5.10-2 Level of Service Criteria At Stop-Controlled Intersections	
Level of Service	Average Control Delay (seconds/vehicle)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

Source: Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2000, pages 10-16 and 16-2.

Table 5.10-3 Level of Service Criteria – Roadways						
Facility Type	Number of Lanes	Maximum Volume for Given Service Level				
		A	B	C	D	E
Arterial, low access control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, moderate access control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial, high access control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	43,000	48,000	54,000	60,000
Collector Street – Minor	2	5,250	6,125	7,000	7,875	8,750
Collector Street - Major	2	8,400	9,800	11,200	12,600	14,000
	4	16,800	19,600	22,400	25,200	28,000
Local Street	2	3,000	3,500	4,000	4,500	5,000
Facility Type		Stops/Mile	Driveways	Speed		
Arterial, low access control		4+	Frequent	25-35 MPH		
Arterial, moderate access control		2-4	Limited	35-45 MPH		
Arterial, high access control		1-2	None	45-55 MPH		

*Sources: Arterial volumes from City of Sacramento, Traffic Impact Analysis Guidelines, 1996.
City of Sacramento 2030 General Plan*

Freeway Segment Analysis

The freeway mainline was analyzed utilizing a methodology outlined in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 13 and 23). Maximum service flow rates of

2,200 vehicles per lane per hour for typical freeway lanes and 1,600 vehicles per lane per hour for auxiliary lanes were used, based upon data collected by Caltrans in the Sacramento urban area. Table 5.10-4 shows the relationship of freeway volume-to-capacity ratios and density to level of service.

Table 5.10-4 Level of Service Criteria – Freeway Mainline		
Level of Service	Maximum Volume-to-Capacity Ratio	Maximum Density (passenger vehicles per mile per lane)
A	0.32	11
B	0.53	18
C	0.74	26
D	0.90	35
E	1.00	45
F	Varies	Varies

Source: Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2000, pages 23-3 and 23-4.

Freeway Ramp and Merge/Diverge Analysis

Freeway ramps and merge / diverge areas were analyzed using a methodology outlined in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 13 and 25). Freeway ramp operating conditions are dependent upon traffic volumes and the ramp characteristics. These characteristics include the length and type of acceleration / deceleration lanes; free-flow speed of the ramps; number of lanes; grade; and types of facilities that the ramps interconnect. Table 5.10-5 shows the relationship of level of service to freeway density.

Table 5.10-5 Level of Service Criteria – Freeway Ramp Merge / Diverge Areas	
Level of Service	Maximum Density (passenger vehicles per mile per lane)
A	10
B	20
C	28
D	35
E	> 35
F	Demand exceeds capacity

Source: Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2000, page 25-5.

As shown in Table 5.10-6, the basic criterion used to determine Freeway Ramp LOS is vehicle density in the merge or diverge area. Note that the 2000 Highway Capacity Manual¹ requires that several additional criteria be considered so that LOS F is automatically attained for a ramp if:

¹ See *Highway Capacity Manual*, Transportation Research Board, Washington, D.C., 2000, pages 13-22 and 13-23.

At an on-ramp, volume exceeds capacity (V>C) in:

1. The segment of a freeway downstream, or
2. The merge-area defined by the on-ramp and the two adjacent freeway lanes

At an off-ramp, volume exceeds capacity (V>C) in:

1. The segment of a freeway upstream OR downstream,
2. The off-ramp itself, or
3. The diverge-area defined by the two adjacent freeway lanes approaching the ramp

Table 5.10-6 shows maximum service flow rates for freeway ramps, based upon information presented in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 13 and 25; 1985, Chapter 5). This methodology is used in cases where the freeway ramp configuration governs the operating condition.

The freeway ramps were also analyzed in terms of the expected queues versus the storage capacity. The length of a vehicle is assumed to be 25 feet long.

Table 5.10-6 Level of Service Definitions – Freeway Ramps						
Level of Service (LOS)	Service Flow Rates for Single Lane / Two Lane Ramps Ramp Design Speed (Mph)					Definition
	< 20	21-30	31-40	41-50	> 51	
A	(1)	(1)	(1)	(1)	800/ 1,550	Conditions of free flow; speed is controlled by driver's desires, speed limits, or physical conditions.
B	(1)	(1)	(1)	1,150/ 2,250	1,150/ 2,350	Conditions of stable flow; operating speeds beginning to be restricted; little or no restrictions on maneuverability from other vehicles.
C	(1)	(1)	1,400/ 2,600	1,600/ 3,100	1,700/ 3,350	Conditions of stable flow; speeds and maneuverability more closely restricted
D	(1)	1,550/ 2,900	1,700/ 3,200	1,950/ 3,850	2,050/ 4,150	Conditions approach unstable flow; tolerable speeds can be maintained, but temporary restrictions may cause extensive delays; little freedom to maneuver; comfort and convenience low.
E	1,800/ 3,200	1,900/ 3,500	2,000/ 3,800	2,100/ 4,100	2,200/ 4,400	Conditions approach capacity; unstable flow with stoppages of momentary duration; maneuverability severely limited.
F	Widely Variable					Forced flow conditions; stoppages for long periods; low operating speeds.

(1) Level of service not attainable due to restricted design speed.
*Sources: Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2000, page 25-5.
 Transportation Research Board, Highway Capacity Manual, Washington, D.C., 1985, page 5-15.*

Existing Level of Service

Intersections

The existing a.m. and p.m. peak hour operating conditions at the study area intersections are shown in Table 5.10-7. The service level standard for Core Area is LOS F, for multi-modal districts and urban centers is LOS E, and

for all other areas LOS D is acceptable. Currently, one intersection operates below level of service standards within the study area, at the intersection of 12th Street and North B Street operates at LOS F during AM peak.

Table 5.10-7 Existing - Intersection Levels of Service					
Intersection	Traffic Control	Peak Hour	Delay Type	Existing	
				LOS ¹	Delay ²
1. I-5 SB Ramps / Richards Boulevard	Signal	AM PM	Average	C C	35.0 22.9
2. I-5 NB Ramps / Richards Boulevard	Signal	AM PM	Average	B E	15.0 65.5
3. Bercut Drive / Richards Boulevard	Signal	AM PM	Average	B B	14.8 15.8
4. 3rd Street / Richards Boulevard	Signal	AM PM	Average	A A	5.9 6.7
5. North 4th Street / Richards Boulevard	Signal	AM PM	Average	A A	6.1 5.8
6. 5th Street / Richards Boulevard	Signal	AM PM	Average	A A	5.4 6.0
7. 7th Street / Richards Boulevard	Signal	AM PM	Average	B B	19.2 12.6
8. 10th Street / Richards Boulevard	Signal	AM PM	Average	A A	8.0 8.7
9. Dos Rios Street / Richards Boulevard	Signal	AM PM	Average	A A	7.7 7.3
14. 10th Street / Vine Street	Minor Stop Controlled	AM	Average	A	4.4
			Worst Move	A	9.0
		PM	Average	A	3.2
			Worst Move	A	8.9
15. Vine Street / Richards Boulevard (future New St / Vine St)	Minor Stop Controlled	AM	Average	A	0.6
			Worst Move	D	28.3
		PM	Average	A	0.7
			Worst Move	D	25.2
17. 12th Street / 16th Street / Richards Boulevard (future New Vine St / New St)	Signal	AM PM	Average	C C	23.0 35.0
18. 12th Street / Sunbeam Avenue / Sproule	Signal	AM	Average	B	10.3

Table 5.10-7 Existing - Intersection Levels of Service					
Intersection	Traffic Control	Peak Hour	Delay Type	Existing	
				LOS ¹	Delay ²
Avenue (future 12th Street / Sproule Ave / Ahern St)		PM		B	10.2
19. 16th Street / Sproule Avenue / Basler Street	Signal	AM PM	Average	A A	2.6 8.7
20. Bercut Drive / Bannon Street (Side street stop sign control)	Minor Stop Controlled	AM	Average	A	1.4
			Worst Move	A	9.3
		PM	Average	A	1.1
			Worst Move	A	9.3
28. 16th Street / North C Street	Minor Stop Controlled	AM	Average	A	0.0
			Worst Move	A	10.0
		PM	Average	A	0.0
			Worst Move	B	10.5
30. 7th Street / North B Street	All Way Stop	AM PM	Average	C C	16.2 16.2
31. 10th Street / North B Street	Minor Stop Controlled	AM	Average	A	1.8
			Worst Move	B	10.7
		PM	Average	A	1.0
			Worst Move	B	10.2
32. 12th Street / North B Street	Signal	AM PM	Average	F C	119.5 30.5
33. 14th Street / North B Street	Minor Stop Controlled	AM	Average	A	0.3
			Worst Move	A	9.3
		PM	Average	A	0.4
			Worst Move	B	10.2
34. Ahern Street / North B Street	Minor Stop Controlled	AM	Average	A	3.4
			Worst Move	B	10.2
		PM	Average	A	2.3
			Worst Move	B	10.8
35. 16th Street / North B Street	Signal	AM PM	Average	A A	2.1 9.4
40. 12th Street / C Street	Signal	AM	Average	B	13.8
		PM	Average	B	11.2

Table 5.10-7 Existing - Intersection Levels of Service					
Intersection	Traffic Control	Peak Hour	Delay Type	Existing	
				LOS ¹	Delay ²
41. 14th Street / C Street	All Way Stop	AM	Average	A	8.2
		PM		A	8.5
42. 16th Street / C Street	Signal	AM	Average	A	6.5
		PM		B	11.5
43. 7th Street / F Street	Minor Stop Controlled	AM	Average	A	4.7
			Worst Move	B	14.9
		PM	Average	A	5.0
			Worst Move	C	15.6
44. 10th Street / F Street	All Way Stop	AM	Average	A	8.1
		PM		A	9.2
45. 14th Street / F Street	Signal	AM	Average	B	18.8
		PM		C	29.4
46. 7th Street / G Street	Signal	AM	Average	B	11.8
		PM		B	11.5
47. 12th Street / G Street	Signal	AM	Average	B	14.0
		PM		B	10.5
48. 5th Street / H Street	Minor Stop Controlled	AM	Average	A	0.3
			Worst Move	B	14.9
		PM	Average	A	0.7
			Worst Move	B	11.4
49. 6th Street / H Street	Signal	AM	Average	B	14.7
		PM		B	10.4
50. 7th Street / H Street	Signal	AM	Average	B	18.6
		PM		B	12.4
51. 16th Street / H Street	Signal	AM	Average	B	11.4
		PM		D	53.4
52. Jibboom Street / I Street	Signal	AM	Average	C	20.3
		PM		B	18.8
53. 5th Street / I Street	Signal	AM	Average	B	17.0
		PM		C	28.5
54. 6th Street / I Street	Signal	AM	Average	B	15.9

Table 5.10-7 Existing - Intersection Levels of Service					
Intersection	Traffic Control	Peak Hour	Delay Type	Existing	
				LOS ¹	Delay ²
		PM		B	18.9
55. 7th Street / I Street	Signal	AM	Average	C	23.0
		PM		B	19.0
56. 3rd Street / J Street	Signal	AM	Average	D	40.7
		PM		C	28.7
57. 5th Street / J Street	Signal	AM	Average	B	13.5
		PM		B	10.8
58. 6th Street / J Street	Signal	AM	Average	A	9.5
		PM		B	10.6
59. 7th Street / J Street	Signal	AM	Average	C	20.1
		PM		A	8.3
<p><i>Source: Dowling Associates, Inc., 2010</i></p> <p>¹ LOS = Level of Service</p> <p>² Delay = Average Delay in seconds</p>					

Roadway Segments

Roadway segments within the study area are classified as low access control facility type. As shown in Table 5.10-8, all of the existing roadway segments are operating at LOS D or better.

Table 5.10-8 Roadway Levels of Service – Existing Conditions				
Roadway Segment	Lanes	Weekday		
		ADT	LOS	V/C
1. Jibboom Street south of Richards Boulevard	2	8,868	A	0.49
2. Richards Boulevard east of Bercut Drive	4	24,319	D	0.81
3. Richards Boulevard east of 5th Street	4	21,640	C	0.72
4. Richards Boulevard east of Dos Rios Street	4	16,948	A	0.56
5. Vine Street east of 10th Street	2	713	A	0.05
6. 12th Street south of Richards Boulevard	4	19,015	B	0.63
7. 16th Street south of Richards Boulevard	4	24,177	D	0.81
15. North B Street west of 7th Street	2	1,619	A	0.11
16. North B Street east of 7th Street	2	3,962	A	0.26
17. North B Street east of 10th Street	4	4,332	A	0.14
18. North B Street east of 12th Street	3	4,435	A	0.20
25. 7th Street south of Richards Boulevard	2	5,686	A	0.38
27. 10th Street south of Richards Boulevard	2	1,466	A	0.10
30. Dos Rios Street south of Richards Boulevard	2	1,329	A	0.09
31. 12th Street south of North B Street	4	16,792	A	0.47
33. 16th Street south of North B Street	4	22,746	B	0.63

Source: Dowling Associates, Inc., 2010

ADT = Averaged daily traffic

LOS = Level of service

V/C = Volume/Capacity

Freeway Mainline

Table 5.10-9 shows levels of service for freeway mainline study segments. Detailed calculations are provided in Appendix A. The analysis showed that many of the freeway mainline study segments operate acceptably during peak periods although many of the freeway study segments operate at LOS F during peak periods. The analysis is based on the number of vehicles that can travel through each freeway segment. During congested conditions drivers must divert to other routes, fewer vehicles are able to get through than the actual demand would otherwise indicate, resulting in lower traffic counts and higher levels of service than are typically observed. The analysis shows many segments are near capacity (Volume/Capacity is close to 1.00), so the analysis of future conditions would identify impacts on segments that are already congested.

**Table 5.10-9
Freeway Mainline Operations – Existing Conditions**

Location	AM Peak Hour			PM Peak Hour		
	Volume	V/C ¹	LOS ²	Volume	V/C ¹	LOS ²
Northbound I-5						
South of L Street on-ramp	6,144	0.76	D	5,667	0.70	C
South of I Street on-ramp	6,377	0.79	D	6,786	0.84	D
South of Richards Blvd off-ramp	6,653	0.70	C	8,082	0.85	D
North of Richards Blvd off-ramp	6,235	0.78	D	7,680	0.96	E
North of Richards Blvd on-ramp	6,694	0.70	C	8,891	0.93	E
Southbound I-5						
North of Richards Blvd off-ramp	7,959	0.83	D	6,775	0.71	C
North of Richards Blvd on-ramp	7,344	0.91	E	6,351	0.79	D
North of J Street off-ramp	7,677	0.80	D	6,971	0.73	C
North of I Street on-ramp	5,670	0.71	C	5,736	0.71	C
Northbound SR 160						
At the American River Bridge	1,720	0.28	A	4,617	0.74	D
Southbound SR 160						
At the American River Bridge	3,542	0.57	C	2,411	0.39	B
<i>Source: Dowling Associates, Inc., 2010</i>						
¹ V/C = Volume / Capacity						
² LOS = Level of Service						

Freeway Interchange

Table 5.10-10 provides a summary of traffic operations at study area interchanges and backup calculations are provided in Appendix A.

Table 5.10-10 Freeway Interchange Operations – Existing Conditions						
Ramp	AM Peak Hour			PM Peak Hour		
	LOS¹	Density² (Flow)	Volume	LOS¹	Density² (Flow)	Volume
Northbound I-5						
P Street to J Street weave	C	22.25	7,572	B	17.24	6,112
L Street on-ramp	C	(254)	233	C	(1221)	1,119
I Street on-ramp	B	12.76	276	C	21.65	1,296
Richards Boulevard off-ramp	B	19.36	418	D	30.62	402
Richards Boulevard on-ramp	C	(501)	459	C	(1321)	1,211
Garden Highway off-ramp	C	21.87	866	E	37.32	1,039
Southbound I-5						
Garden Highway on-ramp	C	(334)	306	C	(789)	723
Richards Boulevard off-ramp	C	24.70	615	C	25.36	424
Richards Boulevard on-ramp	C	(363)	333	C	(676)	620
J Street off-ramp	B	18.35	2,007	B	16.66	1,235
I Street to Q Street weave	B	16.18	5,919	B	18.67	6,685
<i>Source: Dowling Associates, Inc., 2010</i>						
¹ LOS = Level of Service						
² Numbers with decimals indicate the density of passenger vehicles per mile per lane in the merge or diverge area. Whole numbers indicate the ramp flow rate in passenger car equivalents where a lane is added to the freeway at an on-ramp.						

Freeway Off-ramp Queues

Table 5.10-11 provides a summary of traffic operations at study area interchanges and backup calculations are provided in Appendix A.

Table 5.10-11 Interstate 5 Exit Ramp Queues – Existing Conditions			
Exit Ramp	Storage (feet)	Queues (feet)	
		AM	PM
J Street Northbound	720	482	165
Richards Boulevard Northbound	680	144	92
Richards Boulevard Southbound	790	441	189
J Street Southbound	1,215	483	179
<i>Source: Dowling Associates, Inc., 2010</i>			

Regulatory Setting

Existing transportation policies, laws, and regulations that would apply to the River District Area Plan are summarized below. This information provides a context for the impact discussion related to the project’s consistency with applicable regulatory conditions.

Federal

There are no federal policies, laws or regulations that would apply to the project.

State

Interstate freeway I-5 and SR 160 are under the jurisdiction of Caltrans. Based on the Caltrans Route Concept Report for freeway in the study area, the standard is LOS “E”.

Local

City of Sacramento 2030 General Plan

The following General Plan policies would apply to developments within the proposed RDSP area.

- **Multimodal System.** Provide expanded transportation choices to improve the ability to travel efficiently and safely to destinations throughout the city and region.
- **Barrier Removal.** Improve system connectivity by removing barriers to travel.
- **Transportation Demand Management.** Decrease the dependence on single-occupant use of motor vehicles through Transportation Demand Management.
- **Emerging Technologies and Services.** Use emerging transportation technologies and services to increase transportation system efficiency.
- **Integrated Pedestrian System.** Design a universally accessible, safe, convenient, and integrated pedestrian system that promotes walking.
- **Safe, Comprehensive, and Integrated Transit System.** Create and maintain a safe, comprehensive, and integrated transit system as an essential component of a vibrant transportation system.
- **Roadway System.** Create a roadway system that will ensure the safe and efficient movement of people, goods, and services that supports livable communities.
- **Complete Streets.** Provide complete streets that balance the diverse needs of diverse users of the public right-of-way.
- **Neighborhood Traffic.** Enhance the quality of life within existing neighborhoods through the use of neighborhood traffic management techniques, while recognizing the City’s desire to provide a grid system that creates a high level of connectivity.

- **Roadway Functional Classification and Typology.** Maintain an interconnected system of streets that allows travel on multiple routes by multiple modes.
- **Integrated Bicycle System.** Create and maintain a safe, comprehensive, and integrated bicycle system and support facilities throughout the city that encourages bicycling that is accessible to all.
- **Safe Movement of Goods.** Provide for the safe and efficient movement of goods to support commerce while maintaining livability in the city and region.

The policy related to roadway LOS in the 2030 General Plan is described below:

The City shall allow for flexible 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.

Base Level of Service Standard – LOS A-D conditions are acceptable for all areas outside the Core Area or multi-modal districts.

Core Area Roadway Level of Service Exemption – LOS F conditions are acceptable for roadway segments in the Core Area (bounded by C Street, the Sacramento River, 30th Street, and X Street), given that any project causing significant impacts to roadway segments in the Core Area provide and/or assist in funding improvements to other parts of the city wide transportation system in order to improve transportation system wider roadway capacity to make interaction improvements, or to enhance non auto travel modes in furtherance of the General Plan goals. Improvements would be required within the project vicinity or within the area affected by the project’s vehicular traffic impacts. This exemption does not affect the implementation of previously approved roadway and intersection improvements identified for the Railyards or River District planning areas.

Roadway Exempt from Level of Service – LOS F conditions are acceptable for designated individual roadway segments (see list on pages 2-164 and 2-165 of General Plan Mobility Element), given that any project causing significant impacts to these roadway segments provide and/or assist in funding improvements to other parts of the city wide transportation system.

Multi-Modal District Roadway Level of Service – LOS A-E conditions are acceptable in multi-modal districts (areas within ½ mile walking distance of light rail stations, and areas designated for urban scale development (Urban Centers, Urban Corridors, and Urban Neighborhoods as designated in the Land Use and Urban Form Diagram)). These areas are characterized by frequent transit service, enhanced pedestrian and bicycle systems, a mix of uses, and higher-density development. LOS F conditions may be acceptable in cases where projects causing roadway segments to operate at LOS F provide and/or assist in funding improvements to other parts of the city wide transportation system.

Impacts and Mitigation Measures

Standards of Significance

For the purpose of this EIR, an impact is considered significant if construction and/or implementation of new development within the RDSP would result in the following impact that remains significant after implementation of the General Plan policies and, when appropriate, standards used by regulatory agencies. For traffic flow on the freeway system, the standards of Caltrans have been used.

Almost, if not all of the study intersections and roadways are within Multi Modal Districts or the Core Area as designated by the 2030 General Plan.

The thresholds of significance for the study area are defined below.

Roadway Segments

A significant traffic impact occurs for roadway segments when:

- The traffic generated by a project degrades peak period LOS from A, B, C or D (without project) to E or F (with project); or
- The LOS (without project) is E or F, and project generated traffic increases the Volume to Capacity Ratio (V/C ratio) by 0.02 or more.

Intersections:

A significant traffic impact occurs for intersections when:

- The traffic generated by a project degrades peak period Level of Service (LOS) from A, B, C or D (without project) to E or F (with project); or
- The LOS (without project) is E or F, and project generated traffic increases the peak period average vehicle delay by five seconds or more.

Multi-Modal Districts- Level of Service Standard

In Multi-Modal Districts, the City seeks to maintain the following Level of Service standards:

- Maintain operations on all roadways and intersections at LOS A-E at all times, including peak travel times,
- Unless maintaining LOS E would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. LOS F conditions may be acceptable, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation and transit as part of a development project or a City-initiated project.

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.
- 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, as described above, would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts.
- This exemption does not affect the implementation of previously approved roadway and intersection improvements identified for the Railyards or River District planning areas.

Freeway Facilities

Caltrans considers the following to be significant impacts:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway mainline;
- Project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service;
- Project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility. For the freeway in the study area, the standard is LOS "E"; or
- The expected ramp queue is greater than the storage capacity.

Transit

Impacts to the transit system are considered significant if the Proposed Project would:

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

Bicycle Facilities

Impacts to bicycle facilities are considered significant if the Proposed Project would:

- Adversely affect bicycle travel, bicycle paths 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 pedestrian travel, pedestrian paths or
- Fail to adequately provide for access by pedestrians.

Parking

Impacts to parking are considered significant if the Proposed Project would:

- Eliminate or adversely affect an existing parking facility,
- Interfere with the implementation of a proposed parking facility, or
- Result in an inadequate supply of parking.

Methodology

The methods of analysis are summarized below describing the transportation infrastructure for the years of analysis, travel demand forecasting procedures, and trip generation methods for automobiles and transit.

Transportation Infrastructure

Traffic conditions were evaluated for 2015 and 2035 conditions to assess baseline and cumulative transportation impacts of the proposed RDSP. Baseline 2015 conditions were analyzed to determine if there would be potential impacts on a transportation system that would be less developed than in 2035. A list of projects assumed in the 2015 analysis is shown below:

- Discovery Center (hotel and retail)
- Greyhound Bus Terminal
- California Highway Patrol
- Continental Plaza
- Powerhouse Science Center
- California State Lottery Headquarters (Phase 1)
- Township 9 (Parcels 9-1c,9-4, 9-7, 9-10 through 9-14, 9-16, 9-17)
- River District (Parcels 117, 207, 214b, 217, 305, 308, 314, 320, 321, 408, 411a, 418b, 516, and 519)
- Railyards Specific Plan (bounded by Railyards Boulevard, 6th Street, relocated rail tracks, and Bercut Drive)
- Crocker Art Museum Expansion
- 601 Capitol Mall (interim development)
- Sutter Medical Center and the Trinity Cathedral
- La Valentina

2015 Transportation System

The transportation system for 2015 baseline conditions includes part of the RDSP and Railyards Specific Plan areas that are anticipated to be completed near term.

- Expansion of the I-5/Richards Boulevard interchange to provide²:
 - an additional eastbound lane on Richards Boulevard through the interchange area to Bercut Drive
 - an additional westbound lane on Richards Boulevard between the interchange ramps
 - an additional lane at both the northbound and southbound off-ramp intersections with Richards Boulevard
- Extension of 3rd Street south to connect with Bannon Street - Proposed with RDSP
- Extension of North 4th Street south to a new intersection with Bannon Street - Proposed with RDSP
- Construction of Railyards Boulevard from Jibboom Street to 7th Street – Proposed with Railyards SP
- Construction of Camille Lane from Bercut Drive to 6th Street – Proposed with Railyards SP
- Extension of Bercut Drive south to Camille Street – Proposed with Railyards SP
- Construction of Railyards Specific Plan streets between Railyards Boulevard and Camille Street – Proposed with Railyards SP
- Extension of 5th and 6th Streets north to Railyards Boulevard – Proposed with Railyards SP
- Extension of G Street to 5th Street – Proposed with Railyards SP
- Addition of one northbound lane on 7th Street from F Street to Railyards Boulevard – Proposed with Railyards SP
- Addition of one southbound lane on 7th Street from North B Street to Railyards Boulevard – Proposed with Railyards SP

Other projects that have funding allocated for implementation by 2015 have also been included, such as City of Sacramento’s Central City Two-Way Conversion project:

The following roadways would be converted from one-way to two-way:

- 3rd Street between I Street and J Street
- 9th Street between E Street and G Street

² Interstate 5/Richards Boulevard Access Improvements (Fehr & Peers, 2009)

- 10th Street between E Street and I Street
- J Street between 30th Street and Alhambra Street
- N Street between 21st Street and 29th Street

With the same project, the following roadways would be converted from three-lane to two-lane, and would remain as one-way streets:

- 19th Street between H Street and Broadway
- 21st Street between H Street and Broadway

In addition, the Sacramento Regional Transit District (RT) has proposed a new light rail line - Downtown Natomas Airport (DNA) Green Line, which will provide service to the River District. By 2015, the Green Line is anticipated to be partially complete, with northern terminal at Richards Boulevard and 7th Street and transit service at 30-minute headways along 7th Street. This project has been approved by RT and now in the process for construction by the end of 2010.

The street network for 2015 Baseline conditions is shown in **Figure 5.10-5.** A figure showing traffic volumes, lanes, and traffic controls for 2015 Baseline conditions is provided in the appendix.

2035 Transportation System

The transportation system for 2035 conditions includes the following modifications beyond those developed for 2015 conditions:

- Full buildout of the RDSP transportation system
- Expansion of the I-5/Richards Boulevard interchange to a high-capacity diamond interchange configuration as defined in the MTP 2035
- Expansion of the SR 160 Bridge across the American River to four lanes in each direction as defined in the MTP 2035
- Construction of a new four-lane multi-modal bridge across the American River that would connect North 4th Street to Truxel Road as defined in the MTP 2035
- Other MTP 2035 project contained in the SACMET travel demand model
- Completion of the Township 9 transportation system
- Reconfiguration of the Richards Boulevard/12th Street/16th Street intersection area
- Disconnection of Dos Rios Street from the North B Street/12th Street intersection
- Full buildout of the Railyards Specific Plan transportation system
- Conversion of 7th Street to two-way traffic operations between G and H Streets

Other projects that have funding allocated for implementation by 2035 have also been included, such as the two-way street conversions at the following roadways:

- L Street between 16th Street and 28th Street
- N Street between 16th Street and 21st Street
- P Street between 16th Street and 29th Street
- Q Street between 16th Street and 28th Street

In addition, the proposed Sacramento RT Downtown Natomas Airport (DNA) would be completed by 2035, including:

- New light rail stations on North 4th Street north of Richards Boulevard and on 7th Street north of Railyards Boulevard
- Transit service at 15-minute headways

The street network for 2035 Cumulative conditions is shown in **Figure 5.10-6**. A figure showing traffic volumes, lanes, and traffic controls for 2035 Cumulative conditions is provided in the appendix.

Travel Demand Forecasting Procedures

Traffic forecasts were prepared using a combination of travel demand models developed by SACOG and standard trip generation procedures with adjustments made to reflect the dense development in an environment much like downtown which would be well served by transit.

The SACOG Sacramento Metropolitan (SACMET) model is a mathematical tool that estimates the general travel choices people will make, based upon the primary social, demographic, and physical conditions that affect such choices. The travel demand models used for the analysis of the Proposed Project were based on the SACMET model with modifications made as necessary to reflect the proposed RDSP. The travel demand models were used to produce forecasts of roadway link traffic volumes and turning movements at study intersections. The travel demand models contain transportation network and socio-economic information developed for each model year by SACOG. The socio-economic data in the SACMET model includes employment, population, and other data that reflect the expected development of the region. These data were modified only as necessary to reflect land use changes that have already been approved (for baseline conditions) or to represent the proposed RDSP.

Each model run involves four steps: Trip generation, trip distribution, mode choice, and assignment of trips to the network. The four-step modeling process is described in *Sacramento Regional Travel Demand Model General Plan Version 2007 (SACMET 07)*. Trip generation for the Project area was adjusted to match the trip generation estimated for the project using ITE procedures with adjustments as described above. The trip distribution and mode choice elements of the modeling process were applied without modification.

This study begins with the original version of City of Sacramento 2030 General Plan version of the SACMET model. The original model network was then modified to reflect proposed street networks within the RDSP area for 2015 and 2035. Modified model network reflects more realistic accessibility in the area and would provide better traffic assignment route choices in the forecast results. Moreover, detailed network also reflects Traffic Analysis Zones (TAZs) broken down to reflect specific Parcels as defined for trip generation.

This model was modified to include the proposed land use for baseline and cumulative conditions, and was used to assign the vehicle trips to the roadway network. The trips forecasted between pairs of original General Plan model's TAZs through the trip distribution step of the modeling process were disaggregated to the parcel level and were assigned to the more detailed roadway network for the RDSP version of the model.

The travel demand modeling process used in this study takes two factors into account that may not be considered in other studies. This study considers:

- The potential of new roadways proposed for the project to attract traffic that would otherwise use other roadways, and
- The potential for traffic that would otherwise use existing roadways to be diverted to other roadways because of the introduction of new project traffic.

In an equilibrium transportation system, the introduction of new roadways or new traffic into the system will almost always affect the route choice behaviors of other travelers. As a result, the assignment of non-RDSP traffic will not be exactly the same as the assignment of that same traffic with new roadways or new traffic in the system. This potential rerouting effect is typically ignored for the analysis of transportation impacts of small projects. For

the Proposed Project, which includes major changes in the transportation system, the use of the SACMET model provides more realistic forecasts of travel demand and takes into account the rerouting effect caused by the introduction of Proposed Project.

Travel demand for future conditions was estimated under the assumption that the transportation system elements included in the MTP would be in place. For, example, the MTP includes high occupancy vehicle (HOV) lanes along I-5 in the vicinity of the RDSP area by 2035. The traffic forecasts assume those HOV lanes would be in place, resulting in higher travel forecasts along that route to the RDSP area and downtown than would otherwise be forecasted without the HOV lanes. For the analysis of the potential project impacts, only the transportation elements for which funding have been identified were included. Using the I-5 example, HOV lanes were not assumed to be in place for the assessment of project impacts on the freeway. This procedure results in a conservative assessment of potential project impacts.

Trip Generation

Trip generation of the RDSP is based upon information compiled by the Institute of Transportation Engineers (*Trip Generation, Eighth Edition, 2008* and *Trip Generation Handbook, 2004*). Table 5.10-12 shows the number new auto trips that would be generated by the proposed RDSP area under 2015 baseline conditions, as well as 2035 cumulative conditions.

Table 5.10-12 RDSP Auto Trip Generation Summary							
	Trips Generated						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Existing Conditions	93,175	6,693	1,547	8,240	2,945	7,442	10,387
2015 Baseline	130,826	8,791	2,427	11,218	4,468	9,773	14,241
New Trips in 2015	37,651	2,098	880	2,978	1,523	2,331	3,854
2035 Cumulative	198,680	9,124	5,277	14,401	8,147	11,059	19,206
New Trips in 2035	105,505	2,431	3,730	6,161	5,202	3,617	8,819
<i>Source: Dowling Associates, Inc. 2010</i>							

The RDSP would be partially developed in 2015, and would have the potential to generate 37,651 new trips on an average day for the baseline conditions. Approximately 8.6 percent of RDSP trips would take place during the weekday morning peak hour and 10.9 percent during the weekday evening peak hour.

By 2035, RDSP would be fully developed, and would have the potential to generate about 105,505 new trips on an average day. Approximately 6,161 new trips would be generated during the weekday morning peak hour, and 8,819 new trips would be generated during the weekday evening peak hour.

The RDSP area was subdivided into 133 parcels for the purposes of developing trip generation estimates. External trips were derived for each parcel by adjusting the Institute of Transportation Engineers (ITE) trip generation estimates. ITE trip generation estimates are based on empirical data collected at *suburban* locations throughout the United States.

Adjustments to the ITE trip generation estimates were made to account for higher transit ridership, higher levels of walking and bicycle use within the highly urbanized project setting, and the interaction of the mixture of land

uses in the Specific Plan area. Adjustments for the higher use of transit and walk, bike, and other non-auto travel were based on information contained in the *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey* (DKS, 2001). Trip generation adjustment summary tables for RDSP area are provided in Table 5.10-13, Table 5.10-14 and Table 5.10-15. Details of the trip generation adjustments are provided in the appendix. Transit reduction for Year 2015 is assumed to be approximately 50% of percentage applied for 2035, primarily because LRT will be fully implemented by 2035, and it would only be partially completed by 2015.

Table 5.10-13 Trip Generation – Existing Use									
Trip Generation Land Use Category	Amount	Trips Generate d							
			Weekday	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Middle School	407 students	659	121	99	220	32	33	65	
Residential	326 Units	2,271	34	156	190	148	73	221	
Hotel	1,006 rooms	6,018	272	172	444	316	279	595	
Retail	384 KSF	44,760	682	436	1,118	1,991	2,070	4,061	
Office	1,312 KSF	17,940	2,196	300	2,496	335	1,614	1,949	
Light Industrial	5,070 KSF	35,382	4,108	553	4,661	597	4,320	4,917	
Total RDSP Area Trips		107,030	7,413	1,716	9,129	3,419	8,389	11,808	
Transit Adjustments		-3,578	-	383	-39	-422	-70	-370	-440
Total Walk, Bike & Other Non-Auto Travel Adjustments		-7,479	-	294	-87	-381	-282	-455	-737
Internal Trips		-2,798	-	-43	-43	-86	-122	-122	-244
Net External Trips									
Middle School		659	121	99	220	32	33	65	
Residential *		7,168	275	245	520	276	163	439	
Retail		37,903	588	326	914	1,553	1,618	3,171	
Office and Light Industrial		47,445	5,709	791	6,500	824	5,368	6,192	
Total Net RDSP Area Trips		93,175	6,693	1,547	8,240	2,945	7,442	10,387	
Net External Trips Percent of Total RDSP Area Trips		87%	90%	90%	86%	89%	88%		

Sources: Dowling Associates, Inc., 2010
*When computing internal trip reduction, hotel is considered as residential category.

**Table 5.10-14
Trip Generation for RDSP- Year 2015**

Trip Generation Land Use Category	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Powerhouse Science Center *	74 KSF	716	25	3	28	32	52	84	
Middle School	407 student s	659	121	99	220	32	33	65	
Residential	1,647 Units	10,563	146	703	849	663	326	989	
Hotel	837 Rooms	4,879	224	142	366	263	232	495	
Retail	519 KSF	68,127	1,062	680	1,742	3,008	3,127	6,135	
Office	3,207 KSF	38,337	4,789	654	5,443	781	3,800	4,581	
Light Industrial	4,164 KSF	29,055	3,372	454	3,826	491	3,546	4,037	
Total RDSP Area Trips		152,336	9,739	2,735	12,474	5,270	11,116	16,386	
Transit Adjustments		-4,717	-486	-65	-551	-105	-466	-571	
Total Walk, Bike & Other Non-Auto Travel Adjustments		-11,273	-387	-168	-555	-450	-630	-1,080	
Internal Trips		-5,520	-75	-75	-150	-247	-247	-494	
Net External Trips									
Powerhouse Science Center		716	25	3	28	32	52	84	
Middle School		659	121	99	220	32	33	65	
Residential **		13,194	334	738	1,084	778	498	1,287	
Retail		56,987	921	579	1,506	2,501	2,644	5,171	
Office and Light Industrial		59,270	7,390	1,008	8,380	1,125	6,547	7,634	
Total Net RDSP Area Trips		130,826	8,791	2,427	11,218	4,468	9,773	14,241	
New External Trips Percent of Total Project Trips		86%	90%	89%	90%	85%	88%	87%	

*Sources: Dowling Associates, Inc., 2010
*Memorandum: Powerhouse Science Center (IR09-143) – Traffic Impact Analysis Assessment, City DOT Staff, 2009
**When computing internal trip reduction, hotel is considered as residential category.*

After the adjustments were made for transit, walk, bike, and other non-auto travel, an adjustment was made to account for internal trips between different types of land uses within each parcel of the RDSP area. The internal trip adjustments were performed using procedures recommended by the Institute of Transportation Engineers for multi-use developments (*Trip Generation Handbook*). Internal trips are trips that would occur between different land uses within the same block without accessing the street system. Details of the trip generation adjustments are provided in the appendix.

**Table 5.10-15
Trip Generation - Year 2035**

Trip Generation Land Use Category	Amount	Trips Generated							
			Weekday	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Powerhouse Science Center *	74 KSF	889	24	3	27	9	80	89	
Middle School	500 student s	810	149	121	270	39	41	80	
Residential	8,144 Units	48,196	687	3,232	3,919	2,914	1,497	4,411	
Hotel	3,044 Rooms	24,630	1,095	698	1,793	952	845	1,797	
Retail	780 KSF	115,180	1,847	1,181	3,028	5,034	5,248	10,282	
Office	3,956 KSF	45,682	5,746	781	6,527	937	4,585	5,522	
Light Industrial	1,463 KSF	10,199	1,187	159	1,346	172	1,247	1,419	
Total RDSP Area Trips			245,586	10,735	6,175	16,910	10,057	13,543	23,600
Transit Adjustments			-10,621	-878	-245	-1,123	-327	-849	-1,176
Total Walk, Bike & Other Non-Auto Travel Adjustments			-21,921	-553	-473	-1,026	-932	-984	-1,916
Internal Trips			-14,364	-180	-180	-360	-651	-651	-1,302
Net External Trips									
Powerhouse Science Center		889	24	3	27	9	80	89	
Middle School		810	149	121	270	39	41	80	
Residential **		59,656	1,553	3,365	4,941	3,161	1,962	5,143	
Retail		92,499	1,551	1,000	2,551	4,055	4,231	8,297	
Office and Light Industrial		44,826	5,848	788	6,611	884	4,744	5,597	
Total Net RDSP Area Trips			198,680	9,124	5,277	14,401	8,147	11,059	19,206
Net External Trips Percent of Total RDSP Area Trips			81%	85%	85%	85%	81%	82%	81%

Source: Dowling Associates, Inc., 2010

**Memorandum: Powerhouse Science Center (IR09-143) – Traffic Impact Analysis Assessment, City DOT Staff, 2009*

***When computing internal trip reduction, hotel is considered as residential category.*

Internal trips to the RDSP area between different parcels were estimated by the SACOG travel demand model. No pass-by trips were assumed for retail uses because it is not as convenient to drive by, park and stop to shop as would be the case in suburban locations. Most of these types of trips would be served by non-motorized travel modes – walking or biking.

Transit Trip Generation

Transit trip generation estimates were generally based on information contained in the *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey* (DKS, 2001). Summaries of transit trips generated by the project are shown in Table 5.10-16 and more detailed information can be found in Appendices.

Table 5.10-16 - RDSP Transit Trip Generation Summary							
	Trips Generated						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
2015 Baseline	5,378	536	97	633	137	514	651
2035 Cumulative	12,312	1,003	297	1,299	388	979	1,366

Source: Dowling Associates, Inc. 2010

Impacts and Mitigation Measures

Transportation and traffic impacts were assessed for Year 2015 baseline and Year 2305 cumulative conditions. Full development of the project is assumed to occur by 2035 with partial completion by 2015.

Year 2015 Baseline Conditions

Impact 5.10-1	Implementation of the RDSP could result in potentially significant impact at study intersections in 2015.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the intersection than area covered by the General Plan (Page 6.12-11, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.10-1	<i>See below</i>
Residual Significance	<i>Significant and Unavoidable</i>	

**Table 5.10-17
2015 Baseline - Intersection Levels of Service**

Intersection	Traffic Control	Peak Hour	Delay Type	Baseline Conditions	
				LOS ¹	Delay ²
1. I-5 SB Ramps / Richards Boulevard ³	Signal	AM	Average	C	22.2
		PM		F	82.1
2. I-5 NB Ramps / Richards Boulevard ³	Signal	AM	Average	C	34.4
		PM		F	118.6
3. Bercut Drive / Richards Boulevard ³	Signal	AM	Average	C	20.9
		PM		C	29.7
4. 3rd Street / Richards Boulevard	Signal	AM	Average	A	8.9
		PM		F	101.7
5. North 4th Street / Richards Boulevard	Signal	AM	Average	B	12.0
		PM		B	13.9
6. 5th Street / Richards Boulevard	Signal	AM	Average	E	76.1
		PM		E	59.0
7. 7th Street / Richards Boulevard	Signal	AM	Average	C	34.8
		PM		D	36.9
8. 10th Street / Richards Boulevard	Signal	AM	Average	D	46.1
		PM		B	18.0
9. Dos Rios Street / Richards Boulevard	Signal	AM	Average	B	15.8
		PM		E	57.0
10. New Street / New Richards Boulevard	Minor Stop Controlled	AM	Average	A	5.6
			Worst Move	B	10.1
		PM	Average	A	3.0
			Worst Move	B	12.6
15. Vine Street / Richards Boulevard	Minor Stop Controlled	AM	Average	A	0.4
			Worst Move	D	28.7
		PM	Average	F	81.0
			Worst Move	F	460.4
17. 12th Street / 16th Street / Richards Boulevard	Signal	AM	Average	F	95.4
		PM		F	488.1
18. 12th Street / Sunbeam Avenue / Sproule Avenue	Signal	AM	Average	B	19.2
		PM		B	18.1
19. 16th Street / Sproule Avenue / Basler Street	Signal	AM	Average	A	5.9
		PM		D	44.3
20. Bercut Drive / Bannon Street ³	Minor Stop Controlled	AM	Average	A	6.1
			Worst Move	C	17.4
		PM	Average	A	7.8
			Worst Move	C	19.6

Table 5.10-17 2015 Baseline - Intersection Levels of Service					
Intersection	Traffic Control	Peak Hour	Delay Type	Baseline Conditions	
				LOS ¹	Delay ²
21. 3rd Street / Bannon Street	Signal	AM	Average	A	8.2
		PM		A	8.3
22. North 4th Street / Bannon Street	Signal	AM	Average	B	12.5
		PM		B	18.8
28. 16th Street / North C Street	Minor Stop Controlled	AM	Average	A	0.4
			Worst Move	B	11.6
		PM	Average	A	0.5
			Worst Move	C	16.4
30. 7th Street / North B Street	Signal	AM	Average	F	196.6
		PM		F	203.5
31. 10th Street / North B Street	Minor Stop Controlled	AM	Average	B	12.1
			Worst Move	F	192.2
		PM	Average	A	10.0
			Worst Move	F	122.9
32. 12th Street / North B Street	Signal	AM	Average	F	319.1
		PM		F	213.9
33. 14th Street / North B Street	Minor Stop Controlled	AM	Average	A	0.3
			Worst Move	B	12.6
		PM	Average	A	0.3
			Worst Move	C	15.1
34. Ahern Street / North B Street	Minor Stop Controlled	AM	Average	A	3.4
			Worst Move	D	25.0
		PM	Average	A	4.1
			Worst Move	E	41.8
35. 16th Street / North B Street	Signal	AM	Average	A	3.1
		PM		F	119.2
36. 5th Street / Railyards Boulevard	Signal	AM	Average	C	30.6
		PM		D	40.6
37. 7th Street / Railyards Boulevard	Signal	AM	Average	C	30.4
		PM		D	53.1
40. 12th Street / C Street	Signal	AM	Average	B	12.3
		PM		B	17.8
41. 14th Street / C Street	All Way Stop	AM	Average	A	8.5
		PM		B	12.1
42. 16th Street / C Street	Signal	AM	Average	A	6.2
		PM		D	35.3
43. 7th Street / F Street	Signal	AM	Average	B	12.4

**Table 5.10-17
2015 Baseline - Intersection Levels of Service**

Intersection	Traffic Control	Peak Hour	Delay Type	Baseline Conditions	
				LOS ¹	Delay ²
		PM		C	32.0
44. 10th Street / F Street	All Way Stop	AM	Average	B	11.0
		PM		C	20.1
45. 14th Street / F Street	Signal	AM	Average	C	31.5
		PM		F	86.8
46. 7th Street / G Street	Signal	AM	Average	D	39.5
		PM		E	58.9
47. 12th Street / G Street	Signal	AM	Average	B	14.7
		PM		A	9.1
48. 5th Street / H Street	Signal	AM	Average	C	29.1
		PM		E	64.4
49. 6th Street / H Street	Signal	AM	Average	B	10.1
		PM		B	15.6
50. 7th Street / H Street	Signal	AM	Average	B	11.8
		PM		C	20.8
51. 16th Street / H Street	Signal	AM	Average	C	26.4
		PM		F	121.1
52. Jibboom Street / I Street	Signal	AM	Average	C	32.1
		PM		E	68.9
53. 5th Street / I Street	Signal	AM	Average	B	12.8
		PM		F	96.7
54. 6th Street / I Street	Signal	AM	Average	B	19.7
		PM		F	123.9
55. 7th Street / I Street	Signal	AM	Average	C	21.1
		PM		C	23.2
56. 3rd Street / J Street	Signal	AM	Average	E	66.1
		PM		C	33.7
57. 5th Street / J Street	Signal	AM	Average	B	20.0
		PM		B	12.9
58. 6th Street / J Street	Signal	AM	Average	B	12.2
		PM		B	13.0
59. 7th Street / J Street	Signal	AM	Average	B	16.2
		PM		B	10.1

Source: Donling Associates, Inc., 2010

¹ LOS = Level of Service

² Delay = Average Delay in seconds

³ Intersection is located outside the Core Area and Multi-Modal Districts

Table 5.10-17					
2015 Baseline - Intersection Levels of Service					
Intersection	Traffic Control	Peak Hour	Delay Type	Baseline Conditions	
				LOS ¹	Delay ²
<i>Notes: Intersections shown in italics are in the Core Area</i>					
<i>Bold</i> values indicate significant impacts.					

The RDSP would increase traffic volumes at study area intersections and cause the level of service to deteriorate in 2015 and would cause significant impacts at the following intersections:

- (a) I-5 SB Ramps / Richards Boulevard – PM peak hour
- (b) I-5 NB Ramps / Richards Boulevard – PM peak hour
- (c) 3rd Street / Richards Boulevard – PM peak hour
- (d) Vine Street / Richards Boulevard – PM peak hour
- (e) 12th Street / 16th Street / Richards Boulevard – AM and PM peak hours
- (f) 7th Street / North B Street – AM and PM peak hours
- (g) 12th Street / North B Street – AM and PM peak hour
- (h) 16th Street / North B Street – PM peak hour
- (i) 14th Street / F Street – PM peak hour
- (j) 16th Street / H Street – PM peak hour
- (k) 5th Street / I Street – PM peak hour
- (l) 6th Street / I Street – PM peak hour

Mitigation Measure

The following measures would improve operations at study intersections. However, one or more of the intersections analyzed as part of this system would continue to operate at unacceptable levels after mitigation. Therefore, the impact on the transportation system is considered ***significant and unavoidable***.

5.10-1

(a) *At the I-5 southbound ramps / Richards Boulevard intersection, the RDSP Finance Plan shall pay City’s Traffic Operations Center to monitor and adjust the signal timing when needed. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact would require adding a third lane to the southbound on-ramp and modification of the westbound approach to provide two left-turn lanes and one left-through lane (with split phasing for east and westbound traffic), which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way for a new vehicle travel lane; this right of way is currently unavailable. The City, in coordination with Caltrans, is in the process of preparing a Project Study Report for this interchange and the final lane configurations will be an element of that study.*

The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.

With implementation of this mitigation measure and the changes at the adjacent intersection of Richards Boulevard and the I-5 northbound ramps, the level of service would be maintained at LOS C (23.9 seconds delay) in the a.m. peak hour, and remain at LOS F (83.5 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

(b) *At the I-5 northbound ramps / Richards Boulevard intersection, modify/ restripe the eastbound approach to provide two left-turn lanes and two through lanes and adjust the signal timing. The City has included the cost of this improvement in the RDSP Financing*

Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.

The City, in coordination with Caltrans, is in the process of preparing a Project Study Report for this interchange and the final lane configurations will be an element of that study.

With implementation of this mitigation measure, the level of service would be LOS D (50.4 seconds delay) in the a.m. peak hour and improved to LOS E (73.4 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

(c) At the 3rd Street / Richards Boulevard intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. With implementation of this mitigation measure, the level of service would be improved to LOS E (68.0 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

(d) At the Vine Street / Richards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To fully mitigate impacts would require installation of a new traffic signal, however, considering that Richards Boulevard will be realigned, and this intersection would no longer existing under the buildout conditions, major investments to improve short-term conditions is not financially feasible.

(e) At the 12th Street / 16th Street / Richards Boulevard intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.

With implementation of this mitigation measure, the level of service would be improved to LOS E (67.8 seconds delay) in the a.m. peak hour and would remain at LOS F (285.1 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

(f) At the 7th Street / North B Street intersection, add one eastbound left-turn lane to provide one left-turn lane and one through-right turn lane; modify the westbound approach lanes to provide one left-turn lane and one through-right turn lane; add one northbound right-turn lane to provide one left-through lane and one right-turn lane; provide protected left-turning movements for the eastbound and westbound left-turn lanes and provide split phasing for the northbound and southbound movements; and optimize signal timing. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact to a less than significant level would require widening streets and result in significant property impacts.

The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.

With implementation of this mitigation measure, the level of service would remain at LOS F (139.7 seconds delay) in the a.m. peak hour and would be improved to LOS E (59.7 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

(g) At the 12th Street / North B Street intersection, mitigation of impacts to less-than-significant is not feasible. To fully mitigate impacts would result in significant property impacts and require widening 12th Street and N. B Street. No feasible mitigation measures were identified at this intersection.

(h) At the 16th Street / North B Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.

Transportation and Circulation

With implementation of this mitigation measure, the level of service would remain at LOS F (82.0 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

(i) At the 14th Street / F Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. With implementation of this mitigation measure, the level of service would improved to LOS D (44.6 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

(j) At the 16th Street / H Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. With implementation of this mitigation measure, the level of service would improved to LOS D (49.2 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

(k) At the 5th Street / I Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed. With implementation of this mitigation measure, the level of service would improved to LOS C (21.8 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

(l) At the 6th Street / I Street intersection, prohibit parking during the p.m. peak hour for 100 feet along the right side of westbound I Street to provide one combination through-left lane, two through lanes, and one-combination through-right turn lane; modify the northbound lanes to provide one left-turn lane and two through lanes; and optimize signal timing.

With implementation of this mitigation measure, the level of service would maintained be LOS B (13.5 seconds delay) in the a.m. peak hour and would be improved to LOS D (42.9 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-18.

Intersection	Traffic Control	Peak Hour	Delay Type	Baseline Conditions		Baseline Conditions With Mitigation Measures	
				LOS ¹	Delay ²	LOS ¹	Delay ²
1. I-5 SB Ramps / Richards Boulevard ³	Signal	AM PM	Average	C F	22.2 82.1	C F	23.9 83.5
2. I-5 NB Ramps / Richards Boulevard	Signal	AM PM	Average	C F	34.4 118.6	D E	50.4 73.4
4. 3rd Street / Richards Boulevard	Signal	AM PM	Average	A F	8.9 101.7	A E	8.9 68.0
17. 12th Street / 16th Street / Richards Boulevard	Signal	AM PM	Average	F F	95.4 488.1	E F	67.8 285.1
30. 7th Street / North B Street	Signal	AM PM	Average	F F	196.6 203.5	F E	139.7 59.7
35. 16th Street / North B Street	Signal	AM PM	Average	A F	3.1 119.2	A F	3.1 82.0
45. 14th Street / F Street	Signal	AM PM	Average	C F	31.5 86.8	C D	31.5 44.6
51. 16th Street / H Street	Signal	AM PM	Average	C F	26.4 121.1	C D	26.4 49.2
53. 5th Street / I Street	Signal	AM PM	Average	B F	12.8 96.7	B C	11.6 21.8

Table 5.10-18 2015 Baseline – Mitigated Intersection Levels of Service							
54. 6th Street / I Street	Signal	AM	Average	B	19.7	B	13.5
		PM		F	123.9	D	42.9
<p><i>Source: Dowling Associates, Inc., 2010</i></p> <p>¹ LOS = Level of Service</p> <p>² Delay = Average Delay in seconds</p> <p>³ Mitigation of impacts at the I-5 NB Ramps / Richards Boulevard intersection lessens an upstream bottleneck and causes slightly higher delay.</p> <p><i>Notes: Bold values indicate significant impacts.</i></p>							

Impact 5.10-2	Implementation of the RDSP could result in potentially significant impact on study roadway segments in 2015.
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to roadway segments than area covered by the General Plan (6.12-76, MEIR).	
Mitigation included in General Plan EIR applicable to project	None
Project significance after mitigation included in General Plan EIR	See Table 5.10-19
Additional Mitigation for Project	None available
Residual Significance	Significant and Unavoidable

Table 5.10-19 Roadway levels of service – 2015 Baseline Conditions				
Roadway Segment	Lanes	Weekday		
		ADT	LOS	V/C
1. Jibboom Street south of Richards Boulevard	2	11,948	B	0.66
2. Richards Boulevard east of Bercut Drive	4	32,175	F	1.07
3. Richards Boulevard east of 5th Street	4	25,247	D	0.84
4. Richards Boulevard east of Dos Rios Street	4	29,190	E	0.97
5. Vine Street east of 10th Street	2	2,945	A	0.20
6. 12th Street south of Richards Boulevard	4	24,255	D	0.81
7. 16th Street south of Richards Boulevard	4	31,040	F	1.03
12. Bannon Street east of Bercut Drive	2	8,330	A	0.46
15. North B Street west of 7th Street	2	6,435	A	0.43
16. North B Street east of 7th Street	4	19,045	B	0.63
17. North B Street east of 10th Street	4	19,025	B	0.63
18. North B Street east of 12th Street	3	13,135	A	0.58
20. North 4th Street north of Richards Boulevard	2	6,155	A	0.41

Table 5.10-19 Roadway levels of service – 2015 Baseline Conditions				
Roadway Segment	Lanes	Weekday		
		ADT	LOS	V/C
21. North 4th Street south of Richards Boulevard	2	6,825	A	0.46
22. North 4th Street south of Bannon Street	2	6,840	A	0.46
23. 5th Street south of Richards Boulevard	2	8,835	A	0.59
25. 7th Street south of Richards Boulevard	2	11,995	C	0.80
27. 10th Street south of Richards Boulevard	2	5,860	A	0.39
30. Dos Rios Street south of Richards Boulevard	2	3,495	A	0.23
31. 12th Street south of North B Street	4	24,900	B	0.69
32. 14th Street south of North B Street	2	460	A	0.03
33. 16th Street south of North B Street	4	30,095	D	0.84
<p><i>Source: Dowling Associates, Inc., January 2010</i></p> <p><i>ADT = Averaged daily traffic</i></p> <p><i>LOS = Level of service</i></p> <p><i>V/C = Volume/Capacity</i></p> <p><i>Bold values indicate significant impacts.</i></p>				

The traffic generated by RDSP would result in significant traffic impact for the following roadway segments in the study area:

- (a) Richards Boulevard just east of Bercut Drive
- (b) 16th Street south of Richards Boulevard

Mitigation Measure

No feasible mitigation measure was found to lessen the impact to the less than significant level. To mitigate the impact would require widening of Richards Boulevard to add vehicle lanes to increase vehicle capacity, which would be inconsistent with the City of Sacramento goals and objectives to create pedestrian-friendly streets and Smart Growth policies. Hence, the impact would remain **significant and unavoidable**.

Impact 5.10-3	Implementation of the RDSP could result in potentially significant impact on study freeway mainline segments in 2015.
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the freeway mainline than area covered by the General Plan (Page 6.12-85, MEIR).	
Mitigation included in General Plan EIR applicable to project	None
Project significance after mitigation included in General Plan EIR	<i>Potentially Significant</i>
Additional Mitigation for Project	<i>None available</i>
Residual Significance	<i>Significant and Unavoidable</i>

Table 5.10-20 Freeway mainline operations – Baseline Conditions (2015)						
Location	AM Peak Hour			PM Peak Hour		
	Volume	V/C ¹	LOS ²	Volume	V/C ¹	LOS ²
Northbound I-5						
South of L Street on-ramp	6,574	0.82	D	5,970	0.74	D
South of I Street on-ramp	6,837	0.85	D	7,089	0.88	D
South of Richards Blvd off-ramp	7,113	0.75	D	8,385	0.88	D
North of Richards Blvd off-ramp	5,780	0.72	C	7,790	0.97	E
North of Richards Blvd on-ramp	6,278	0.66	C	9,357	0.98	E
Southbound I-5						
North of Richards Blvd off-ramp	8,758	0.92	E	7,133	0.75	D
North of Richards Blvd on-ramp	7,019	0.87	D	6,116	0.76	D
North of J Street off-ramp	7,352	0.77	D	8,746	0.92	E
North of I Street on-ramp	5,257	0.65	C	7,329	0.91	E
Northbound SR 160						
At the American River Bridge	2,151	0.34	B	7,598	1.22	F
Southbound SR 160						
At the American River Bridge	4,529	0.73	D	2,411	0.39	B
<i>Source: Dowling Associates, Inc., 2010</i>						
¹ <i>V/C = Volume / Capacity</i>						
² <i>LOS = Level of Service</i>						
<i>Note: Bold values indicate significant impacts.</i>						

The traffic generated by RDSP would result in significant traffic impact in 2015 for one freeway mainline segment in the study area:

- (a) SR 160 northbound at the American River Bridge: PM peak hour.

Mitigation Measure

No feasible mitigation measure was found to lessen the impact on SR 160 northbound at the American River Bridge. To fully mitigate this impact, it would be necessary to reduce the RDSP traffic such that no additional traffic were added to the freeway segment, or improve the operation of the freeway segment from LOS F to LOS E. Widening the freeway would reduce the impact, but was not considered feasible because of the numerous transportation structures that would need to be modified/ replaced and related secondary environment.

The City is participating in a multi-agency committee that is developing a regional impact fees for the I-5 corridor, which may improve all freeways within the study area. The RDSP shall be required to pay the I-5 corridor fees that is in effect at the time of issuance of building permits. However, the contribution of these funds does not

ensure that the project’s impacts on the mainline freeway will be fully mitigated. Therefore the impact of the project will remain **significant and unavoidable**.

Impact 5.10-4	Implementation of the RDSP could result in potentially significant impact on study freeway interchanges in 2015.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the freeway interchange than area covered by the General Plan (Page 6.12-85, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.10-4	<i>Prior to building permit, each developer shall pay the I-5 impact fee that is in effect at the time of the issuance of building permit.</i>
Residual Significance	<i>Significant and Unavoidable</i>	

Table 5.10-21 Freeway interchange operations – Baseline Conditions (2015)						
	AM Peak Hour			PM Peak Hour		
	LOS ²	Density ³ (Flow)	Volume	LOS ²	Density ³ (Flow)	Volume
Northbound I-5						
P Street to J Street weave	C	23.85	8,067	B	19.22	6,643
L Street on-ramp	C	(287)	263	C	(1221)	1,119
I Street on-ramp	B	13.57	276	C	22.19	1,296
Richards Boulevard off-ramp	C	25.73	1,333	D	32.88	595
Richards Boulevard on-ramp	C	(543)	498	E	(1709)	1,567
Garden Highway off-ramp	C	21.80	866	E	39.24	1,039
Southbound I-5						
Garden Highway on-ramp	C	(395)	362	C	(1179)	1,081
Richards Boulevard off-ramp	D	33.30	1,739	D	29.98	1,017
Richards Boulevard on-ramp	C	(363)	333	F	(2869)	2,630
J Street off-ramp	B	17.57	2,095	C	20.90	1,417
I Street to Q Street weave	B	16.01	5,712	C	23.45	8,278
<i>Source: Dowling Associates, Inc., 2010</i>						
¹ LOS = Level of Service						
² Numbers with decimals indicate the density of passenger vehicles per mile per lane in the merge or diverge area. Whole numbers indicate the ramp flow rate in passenger car equivalents where a lane is added to the freeway at an on-ramp.						

*Note: **Bold** values indicate significant impacts.*

The traffic generated by RDSP would result in significant traffic impact for one freeway interchange location in the study area:

- (a) I-5 southbound on-ramp from Richards Boulevard - PM peak hour

Mitigation Measure

No feasible mitigation measures were identified that would reduce the impact of the project on I-5 southbound on-ramp from Richards Boulevard. The City is participating in a multi-agency committee that is developing a regional impact fees for the I-5 corridor, which may improve all freeways within the study area. The RDSP shall be required to pay the I-5 corridor fees that is in effect at the time of issuance of building permits. However, the contribution of these funds does not ensure that the project’s impacts on the freeway ramp will be fully mitigated. Therefore the impact of the project will remain **significant and unavoidable**.

Impact 5.10-5	Implementation of the RDSP could result in potentially significant impact on study freeway off-ramp queues in 2015.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the freeway off-ramp than area covered by the General Plan (Page 6.12-85, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>See Table 5.10-22</i>	
Additional Mitigation for Project	MM 5.10.-5	Implement MM 5.10-1(a)
Residual Significance	<i>Significant and Unavoidable</i>	

Table 5.10-22 Interstate 5 exit ramp queues – Baseline Conditions (2015)			
Exit Ramp	Storage (feet)	Queues (feet)	
		AM	PM
J Street Northbound	720	639	254
Richards Boulevard Northbound	680	787	86
Richards Boulevard Southbound	790	420	356
J Street Southbound	1,215	543	311
<i>Source: Dowling Associates, Inc., 2010</i>			
<i>Note: Bold values indicate significant impacts.</i>			

The traffic generated by RDSP would result in significant traffic impact for one freeway off-ramp queue in the study area:

- (a) I-5 northbound off-ramp to Richards Boulevard – AM peak hour.

Mitigation Measure

Implementation of MM 5.10-1(a), is not expected to improve the freeway off-ramp queue at the I-5 southbound off-ramp at Richards Boulevard. No additional mitigation measures were identified that would mitigate impacts to less than significant. Therefore, the impact on the transportation system is considered **significant and unavoidable**.

Impact 5.10-6	Implementation of the RDSP could adversely affect transit facilities in 2015.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the transit facilities than area covered by the General Plan (Page 6.12-92, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.10-6	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

RDSP development in 2015 would increase the number of transit trips in the area and increase the loading on current RT bus routes and light rail. The RDSP would increase demand for transit services in 2015. Compared to existing conditions, the RDSP development would generate 1,303 more daily transit trips, 155 more AM peak hour transit trips, and 152 more PM peak hour transit trips in 2015. With the proposed DNA Green Line, light rail service to 7th Street and Richards Boulevard, which would run at 15 minutes headway with potentially 4-car train consists, additional transit demands should be reasonably accommodated by the new trains and other RT bus routes in the vicinity.

RDSP development would generate demand for Amtrak service, particularly the Capitol Express service to the greater Bay Area. However, considering the recent service expansion and added capacity, the addition of RDSP generated trips would likely be accommodated.

Mitigation Measure

None required.

Impact 5.10-7	Implementation of the RDSP could adversely affect bicycle facilities in 2015.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the bicycle facilities than area covered by the General Plan (Page 6.12-88, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.10-7	<i>None required</i>

Residual Significance	<i>Less than Significant</i>
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Implementation of RDSP would construct a system of Class I, II, and III bicycle facilities throughout the RDSP area. The provision of additional bicycle linkages throughout the area plan would enhance the overall bicycle system and allow bicyclists to move throughout the area on dedicated bicycle routes instead of using vehicle lanes. Implementation of the RDSP would not remove any existing bicycle facility or any facility that is planned in the 2010 City of Sacramento Bikeway Master Plan. Therefore, implementation of the RDSP would not adversely affect bicycle facilities and the impact would be less than significant.

Mitigation Measure

None required.

Impact 5.10-8	Implementation of the RDSP could adversely affect pedestrian facilities in 2015.	
	Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the pedestrian facilities than area covered by the General Plan (Page 6.12-87, MEIR).	
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.10-8	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

Implementation of the RDSP would construct curb, gutter, sidewalks and planters per City standards. Several Street cross sections have sidewalks wider than standard width and are considered enhancements to the pedestrian system. The impact would be less than significant.

Mitigation Measure

None required.

Impact 5.10-9	Implementation of the RDSP could adversely affect parking facilities in 2015.	
	Central City Community Plan Area is not an area of the City that would generate more or additional impacts to parking than area covered by the General Plan (Page 6.12-89, MEIR).	
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.10-9	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

RDSP will provide parking spaces per City Code requirement. Therefore, the impact would be less than significant.

Mitigation Measure

None required.

Year 2035 Cumulative Conditions

Impact 5.10-10	Implementation of the RDSP could result in potentially significant impact at study intersections in 2035.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to intersections than area covered by the General Plan (Page 6.12-76, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.10-10	<i>See below</i>
Residual Significance	<i>Significant and Unavoidable</i>	

Table 5.10-23 2035 Cumulative - Intersection Levels of Service					
Intersection	Traffic Control	Peak Hour	Delay Type	Cumulative Conditions	
				LOS ¹	Delay ²
1. I-5 SB Ramps / Richards Boulevard	Signal	AM PM	Average	C F	25.0 135.0
2. I-5 NB Ramps / Richards Boulevard	Signal	AM PM	Average	C E	23.1 71.7
3. Bercut Drive / Richards Boulevard	Signal	AM PM	Average	D F	43.5 153.8
4. 3rd Street / Richards Boulevard	Signal	AM PM	Average	C E	22.4 73.4
5. North 4th Street / Richards Boulevard	Signal	AM PM	Average	F F	119.9 225.0
6. 5th Street / Richards Boulevard	Signal	AM PM	Average	D F	42.1 139.1
7. 7th Street / Richards Boulevard	Signal	AM PM	Average	F F	169.5 291.2
8. 10th Street / Richards Boulevard	Signal	AM PM	Average	C D	20.4 35.8
9. Dos Rios Street / Richards Boulevard	Signal	AM	Average	B	10.6

Table 5.10-23 2035 Cumulative - Intersection Levels of Service					
Intersection	Traffic Control	Peak Hour	Delay Type	Cumulative Conditions	
				LOS ¹	Delay ²
		PM		C	23.1
10. New Street / New Richards Boulevard	Signal	AM PM	Average	E F	74.7 161.0
11. New 12th Street / New Richards Boulevard	Signal	AM PM	Average	D F	46.4 116.4
12. 16th Street / New Richards Boulevard	Signal	AM PM	Average	C F	21.6 184.4
13. New Vine Street / New Richards Boulevard	AWS	AM PM	Average	A C	7.1 18.3
14. 10th Street / Vine Street	Roundabout	AM PM	Average	A A	6.3 6.4
15. Vine Street / Richards Boulevard	Signal	AM PM	Average	F F	86.1 402.9
16. Vine Street / New 12th Street	Signal	AM PM	Average	F F	132.5 212.5
17. 16th Street / New Vine St	Signal	AM PM	Average	C F	31.3 542.1
18. 12th Street / Sproule Ave / Ahern St	Signal	AM PM	Average	A B	9.1 11.2
19. 16th Street / Sproule Avenue / Basler Street	Signal	AM PM	Average	A C	8.8 26.1
20. Bercut Drive / Bannon Street	Signal	AM PM	Average	B B	15.0 14.6
21. 3rd Street / Bannon Street	Signal	AM PM	Average	B C	17.3 25.6
22. North 4th Street / Bannon Street	Signal	AM PM	Average	D C	37.0 32.6
23. 5th Street / Bannon Street	Signal	AM PM	Average	C D	22.1 50.2
24. 7th Street / Bannon Street	Signal	AM PM	Average	D E	46.5 55.7
25. 10th Street / Bannon Street	Signal	AM PM	Average	B B	11.5 17.1
26. Dos Rios Street / Bannon Street	Signal	AM PM	Average	A D	5.4 45.7
27. 12th Street / Bannon Street	Signal	AM PM	Average	C E	27.8 66.1

Table 5.10-23 2035 Cumulative - Intersection Levels of Service					
Intersection	Traffic Control	Peak Hour	Delay Type	Cumulative Conditions	
				LOS ¹	Delay ²
28. 16th Street / North C Street	Minor Stop Controlled	AM	Average	A	0.2
			Worst Move	B	10.2
		PM	Average	A	0.8
			Worst Move	C	18.0
29. 5th Street / North B Street	Signal	AM	Average	D	47.5
		PM		E	60.3
30. 7th Street / North B Street	AWS	AM	Average	F	112.2
		PM		F	248.1
31. 10th Street / North B Street	Signal	AM	Average	E	71.9
		PM		F	126.4
32. 12th Street / North B Street	Signal	AM	Average	F	133.8
		PM		F	194.1
33. 14th Street / North B Street	Signal	AM	Average	D	36.7
		PM		F	202.8
34. Ahern Street / North B Street	Signal	AM	Average	F	90.9
		PM		F	164.2
35. 16th Street / North B Street	Signal	AM	Average	C	21.5
		PM		E	57.2
36. 5th Street / Railyards Boulevard	Signal	AM	Average	D	42.8
		PM		F	169.0
37. 7th Street / Railyards Boulevard	Signal	AM	Average	F	98.7
		PM		F	277.4
38. 10th Street / Railyards Boulevard	Signal	AM	Average	F	84.1
		PM		F	119.7
39. 10th Street / C Street	Signal	AM	Average	F	110.8
		PM		F	187.4
40. 12th Street / C Street	Signal	AM	Average	D	37.8
		PM		E	73.7
41. 14th Street / C Street	All Way Stop	AM	Average	F	206.6
		PM		F	563.3
42. 16th Street / C Street	Signal	AM	Average	A	6.7
		PM		F	103.4
43. 7th Street / F Street	Signal	AM	Average	F	259.8
		PM		F	609.8
44. 10th Street / F Street	All Way Stop	AM	Average	F	109.9
		PM		F	418.5
45. 14th Street / F Street	Signal	AM	Average	E	64.4

**Table 5.10-23
2035 Cumulative - Intersection Levels of Service**

Intersection	Traffic Control	Peak Hour	Delay Type	Cumulative Conditions	
				LOS ¹	Delay ²
		PM		F	146.9
<i>46. 7th Street / G Street</i>	Signal	AM PM	Average	D F	51.9 223.3
<i>47. 12th Street / G Street</i>	Signal	AM PM	Average	B B	16.7 11.3
<i>48. 5th Street / H Street</i>	Signal	AM PM	Average	F F	253.6 222.0
<i>49. 6th Street / H Street</i>	Signal	AM PM	Average	C F	31.1 126.5
<i>50. 7th Street / H Street</i>	Signal	AM PM	Average	B B	18.8 17.5
<i>51. 16th Street / H Street</i>	Signal	AM PM	Average	C F	24.3 193.3
<i>52. Jibboom Street / I Street</i>	Signal	AM PM	Average	E F	61.4 395.3
<i>53. 5th Street / I Street</i>	Signal	AM PM	Average	C F	25.4 154.8
<i>54. 6th Street / I Street</i>	Signal	AM PM	Average	D F	40.9 269.1
<i>55. 7th Street / I Street</i>	Signal	AM PM	Average	B C	11.5 22.3
<i>56. 3rd Street / J Street</i>	Signal	AM PM	Average	F D	122.0 38.0
<i>57. 5th Street / J Street</i>	Signal	AM PM	Average	D B	38.0 15.6
<i>58. 6th Street / J Street</i>	Signal	AM PM	Average	A B	9.3 15.5
<i>59. 7th Street / J Street</i>	Signal	AM PM	Average	B B	12.0 12.0

Source: Dowling Associates, Inc., 2010

¹ LOS = Level of Service

² Delay = Average Delay in seconds

Notes: Intersections shown in italics are in the Core Area

Bold values indicate significant impacts.

The RDSP would increase traffic volumes at study area intersections and cause the level of service to deteriorate in 2035 and would cause significant impacts at the following intersections:

- (a) I-5 SB Ramps / Richards Boulevard – PM peak hour
- (b) Bercut Drive / Richards Boulevard – PM peak hour
- (c) North 4th Street / Richards Boulevard – AM and PM peak hours
- (d) 5th Street / Richards Boulevard – PM peak hour
- (e) 7th Street / Richards Boulevard – AM and PM peak hours
- (f) Street W / Richards Boulevard – PM peak hour
- (g) 12th Street / Richards Boulevard – PM peak hour
- (h) 16th Street / Richards Boulevard – PM peak hour
- (i) Vine Street / Street W– AM and PM peak hours
- (j) Vine Street / 12th Street – AM and PM peak hours
- (k) 16th Street / Vine Street – PM peak hour
- (l) 7th Street / North B Street – AM and PM peak hours
- (m) 10th Street / North B Street – PM peak hour
- (n) 12th Street / North B Street – AM and PM peak hours
- (o) 14th Street / North B Street – PM peak hour
- (p) Ahern Street / North B Street – AM and PM peak hours
- (q) 5th Street / Railyards Boulevard – PM peak hour
- (r) 7th Street / Railyards Boulevard– AM and PM peak hours
- (s) 10th Street / Railyards Boulevard– AM and PM peak hours
- (t) 10th Street / C Street – AM and PM peak hours
- (u) 14th Street / C Street – AM and PM peak hours
- (v) 16th Street / C Street – PM peak hour
- (w) 7th Street / F Street – AM and PM peak hours
- (x) 10th Street / F Street – AM and PM peak hours
- (y) 14th Street / F Street – PM peak hour
- (z) 7th Street / G Street – PM peak hour
- (aa) 5th Street / H Street – AM and PM peak hour
- (bb) 6th Street / H Street – PM peak hour
- (cc) 16th Street / H Street – PM peak hour
- (dd) Jibboom Street / I Street – PM peak hour
- (ee) 5th Street / I Street – PM peak hour
- (ff) 6th Street / I Street – PM peak hour
- (gg) 3rd Street / J Street – AM peak hour

Mitigation Measure

The following measures would improve operations at study intersections. However, one or more of the intersections analyzed as part of this system would continue to operate at unacceptable levels after mitigation. Therefore, the impact on the transportation system is considered ***significant and unavoidable***.

5.10-10

(a) *At the I-5 southbound ramps / Richards Boulevard intersection, add a third westbound left-turn lane approximately 100 feet in length; modify the eastbound approach lanes to provide one through lane, one through-right turn lane, and one right-turn lane; and optimize signal timing. To accommodate these modifications without widening proposed roadways modifications at the adjacent I-5 northbound ramps are required. At the I-5 northbound ramps / Richards Boulevard intersection, the City shall reduce the length of the eastbound left-turn lane to approximately 100 feet; convert one eastbound through lane to a second left-turn lane; and optimize*

signal timing. The City, in coordination with Caltrans, is in the process of preparing a Project Study Report for this interchange and the final lane configurations will be an element of that study.

The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.

With implementation of this mitigation measure, the level of service would be maintained at LOS C (25.1 seconds delay) in the a.m. peak hour and would be improved to LOS E (75.0 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-24. At the I-5 northbound ramps / Richards Boulevard intersection, the level of service would be LOS D (45.2 seconds delay) in the a.m. peak hour and would be improved to LOS D (44.8 seconds delay) in the p.m. peak hour.

(b) At the Bercut Drive / Richards Boulevard intersection, provide two left-turn lanes and a left-through-right turn lane; modify the southbound lanes to provide a right-turn lane and a combination left-through-right turn lane; and optimize signal timing. No additional mitigation measures were identified that would mitigate impacts to less than significant. To mitigate the impact would require adding a lane to Richards Boulevard and/or Bercut Drive, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. The City, in coordination with Caltrans, is in the process of preparing a Project Study Report for this interchange and the final lane configurations will be an element of that study.

The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.

With implementation of this mitigation measure, the level of service would be maintained at LOS D (45.6 seconds delay) in the a.m. peak hour, and would remain at LOS F (107.8 seconds delay) in the p.m. peak hour. These results are shown in Table 5.10-24.

(c) At the North 4th Street / Richards Boulevard intersection, provide two northbound left-turn lanes, and one through-right turn lane; add one westbound right-turn lane with overlap signal phasing, to provide one left-turn, two through lanes, and one right-turn lane; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.

With implementation of this mitigation measure, the level of service would be improved to LOS E (78.7 seconds delay) in the a.m. peak hour, and would be improved to LOS E (74.2 seconds delay) in the p.m. peak hour.

(d) At the 5th Street / Richards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.

(e) At the 7th Street / Richards Boulevard intersection, modify the eastbound approach to provide two left-turn lanes, one through lane, and one through-right turn lane; add lanes to the northbound approach to provide two-left-turn lanes, two through lanes, and one right-turn lane with overlap signal phasing; increase the traffic signal cycle length from 100 to 150 seconds during both the a.m. and p.m. peak hours; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.

With implementation of this mitigation measure, the level of service would be improved to LOS D (53.4 seconds delay) in the a.m. peak hour, and would be improved to LOS E (79.6 seconds delay) in the p.m. peak hour.

(f) *At the Street W / Richards Boulevard intersection, the RDSP Finance Plan shall include the cost to modify the eastbound approach to add one northbound right-turn lane to provide one left-turn lane, one through lane, and one right-turn lane; monitor and adjust the signal timing when needed.*

With implementation of this mitigation measure, the level of service would be maintained at LOS E (77.5 seconds delay) in the a.m. peak hour, and would be improved to LOS E (78.5 seconds delay) in the p.m. peak hour.

(g) *At the 12th Street / Richards Boulevard intersection, the RDSP Finance Plan shall include the cost to remove one westbound through lane and add one eastbound through lane, this could be accomplished without widening the street; monitor and adjust the signal timing when needed.*

With implementation of this mitigation measure, the level of service would be improved to LOS C (25.7 seconds delay) in the a.m. peak hour, and would be improved to LOS D (48.9 seconds delay) in the p.m. peak hour.

(h) *At the 16th Street / Richards Boulevard intersection, the RDSP Finance Plan shall include the cost to remove one westbound through lane west of the intersection to add one eastbound left-turn lane, this could be accomplished without widening the street; monitor and adjust the signal timing when needed. Mitigation of impacts to less-than-significant is not feasible, To mitigate the impact would require adding lanes to some or all of the intersecting roadways, including the American River Bridge, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.*

With implementation of this mitigation measure, the level of service would be improved to LOS B (15.8 seconds delay) in the a.m. peak hour, and would be LOS F (99.9 seconds delay) in the p.m. peak hour.

(i) *At the Vine Street / Street W intersection, add one northbound right-turn lane to provide one left-through-right turn lane, and one right-turn lane; add one southbound left-turn lane to provide one left-turn lane, one left-through-right turn lane; add one eastbound through lane to provide one left-turn lane, one through lane, one through-right turn lane; provide a fully actuated traffic signal; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.*

With implementation of this mitigation measure, the level of service would be improved to LOS D (40.9 seconds delay) in the a.m. peak hour, and would be improved to LOS E (63.2 seconds delay) in the p.m. peak hour.

(j) *At the Vine Street / 12th Street intersection, add two eastbound through lanes to provide three through lanes, one through-right turn lane; convert Vine Street to one-way eastbound between 12th Street and 16th Street, there would be no road widening in this section; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.*

With implementation of this mitigation measure, the level of service would be improved to LOS D (51.4 seconds delay) in the a.m. peak hour, and would be improved to LOS D (53.0 seconds delay) in the p.m. peak hour.

(k) *At the 16th Street / Vine Street intersection, convert Vine Street to one-way eastbound between 12th Street and 16th Street and add one eastbound left-turn lane, this could be accomplished without widening the street. Mitigation of impacts to less-than-significant is not feasible, To mitigate the impact would require adding lanes to some or all of the intersecting roadways, including the American River Bridge, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.*

With implementation of this mitigation measure, the level of service would be improved to LOS B (18.9 seconds delay) in the a.m. peak hour, and would remain at LOS F (361.2 seconds delay) in the p.m. peak hour.

(l) At the 7th Street / North B Street intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.

(m) At the 10th Street / North B Street intersection, add one eastbound through lane to provide one left-turn lane, one through lane, and one through-right turn lane, this can be accomplished without widening the existing street; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP.

With implementation of this mitigation measure, the level of service would be improved to LOS D (52.9 seconds delay) in the a.m. peak hour, and would be improved to LOS E (74.6 seconds delay) in the p.m. peak hour.

(n) At the 12th Street / North B Street intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.

(o) At the 14th Street / North B Street intersection, convert the westbound left-through lane to a left-turn only lane and provide protected left-turn signal phasing; monitor and adjust the signal timing when needed. Mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP.

With implementation of this mitigation measure, the level of service would be improved to LOS C (25.3 seconds delay) in the a.m. peak hour, and would remain at LOS F (105.7 seconds delay) in the p.m. peak hour.

(p) At the Abern Street / North B Street intersection, convert eastbound left-through lane to a left-turn only lane to provide one left-turn lane and one through-right turn lane; convert the westbound left-through lane to a left-turn only lane to provide one left-turn lane and one through-right turn lane; monitor and adjust the signal timing when needed. Mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP.

With implementation of this mitigation measure, the level of service would be improved to LOS E (58.0 seconds delay) in the a.m. peak hour, and would remain at LOS F (109.1seconds delay) in the p.m. peak hour.

(q) At the 5th Street / Railyards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.

(r) *At the 7th Street / Railyards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.*

(s) *At the 10th Street / Railyards Boulevard intersection, mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.*

(t) *At the 10th Street / C Street intersection, add one left-turn lane to provide one left-turn lane and one through-right turn lane to southbound, eastbound and westbound approaches; provide leading protected left-turn phase for southbound approach; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.*

With implementation of this mitigation measure, the level of service would be improved to LOS D (48.0 seconds delay) in the a.m. peak hour, and would be improved to LOS E (66.3 seconds delay) in the p.m. peak hour.

(u) *At the 14th Street / C Street intersection, install a new traffic signal at the time when one or more warrants are satisfied; provide one northbound right-turn lane by prohibiting on-street parking for 150 feet during the p.m. peak hour. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.*

With implementation of this mitigation measure, the level of service would be improved to LOS B (15.3 seconds delay) in the a.m. peak hour, and would be improved to LOS E (65.8 seconds delay) in the p.m. peak hour.

(v) *At the 16th Street / C Street intersection, convert the eastbound through lane to a left-through lane to provide one left-turn lane and one through-left lane; provide split signal phasing for eastbound and westbound traffic movements; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.*

With implementation of this mitigation measure, the level of service would be improved to LOS C (20.4 seconds delay) in the a.m. peak hour, and would be improved to LOS E (72.1 seconds delay) in the p.m. peak hour.

(w) *At the 7th Street / F Street intersection, modify the northbound and southbound approaches to provide one left-turn lane and one through-right turn lane; modify the westbound lanes on F Street to provide one left-through lane and one right-turn lane; provide permitted left-turn signal phasing for the east and westbound movements; provide overlap signal phasing for the westbound right turn movement; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.*

With implementation of this mitigation measure, the level of service would be improved to LOS C (26.5 seconds delay) in the a.m. peak hour, and would remain at LOS F (106.2 seconds delay) in the p.m. peak hour.

(x) *At the 10th Street / F Street intersection, install a traffic signal at the time when one or more warrants are satisfied. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.*

With implementation of this mitigation measure, the level of service would be improved to LOS B (12.3 seconds delay) in the a.m. peak hour, and would be improved to LOS D (48.5 seconds delay) in the p.m. peak hour.

(y) *At the 14th Street / F Street intersection, add one southbound left-turn to provide one left-turn lane and one through-right turn lane, this would require converting the angle parking to parallel parking on the east side of 14th Street north of F Street; provide leading, protected-permitted signal phasing for the southbound left turn movement; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits. Mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require significant removal of parking to add traffic lanes.*

With implementation of this mitigation measure, the level of service would be improved to LOS C (28.7 seconds delay) in the a.m. peak hour, and would remain LOS F (88.8 seconds delay) in the p.m. peak hour.

(z) *At the 7th Street / G Street intersection, modify westbound lanes to provide one left-turn lane, one through lane and one right-turn lane; provide permitted phasing for the northbound left turn movement; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits. Mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.*

With implementation of this mitigation measure, the level of service would be maintained at LOS D (39.9 seconds delay) in the a.m. peak hour, and would remain at LOS F (132.2 seconds delay) in the p.m. peak hour.

(aa) *At the 5th Street / H Street intersection, add one northbound right-turn lane to provide one left-turn lane, one through lane and one right-turn lane; monitor and adjust the signal timing when needed. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits.*

With implementation of this mitigation measure, the level of service would be improved to LOS D (40.5 seconds delay) in the a.m. peak hour, and would be improved to LOS E (74.7 seconds delay) in the p.m. peak hour.

(bb) *At the 6th Street / H Street intersection, provide protected signal phasing for the southbound left turn movement. Mitigation of impacts to less-than-significant is not feasible. To mitigate the impact would require a fully actuated traffic signal, which is not consistent with signal operations of intersections in the area.*

With implementation of this mitigation measure, the level of service would be LOS D (38.6 seconds delay) in the a.m. peak hour, and would remain at LOS F (128.4 seconds delay) in the p.m. peak hour.

(cc) *At the 16th Street / H Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to increase the signal cycle length to 100 seconds and re-optimize signal splits during the p.m. peak hour.*

With implementation of this mitigation measure, the level of service would be improved to LOS E (61.9 seconds delay) in the p.m. peak hour.

(dd) *At the Jibboom Street / I Street intersection, to mitigate the impact would require widening of the existing and/or proposed elevated bridge structures to add vehicle lanes to increase vehicle capacity, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable. No feasible mitigation measures were identified at this intersection.*

(ee) *At the 5th Street / I Street intersection, the RDSP Finance Plan shall pay City's Traffic Operations Center to monitor and adjust the signal timing when needed.*

With implementation of this mitigation measure, the level of service would be maintained at LOS C (22.5 seconds delay) in the a.m. peak hour, and would be improved to LOS E (57.8 seconds delay) in the p.m. peak hour.

(ff) At the 6th Street / I Street intersection, prohibit parking during the p.m. peak hour for 100 feet along the right side of westbound I Street to provide one through-left lane, two through lanes, and one through-right turn lane; modify the northbound approach to provide one left-turn lane and two through lanes; monitor and adjust the signal timing when needed.

With implementation of this mitigation measure, the level of service would be maintained at LOS D (36.7 seconds delay) in the a.m. peak hour, and would be improved to LOS E (68.6 seconds delay) in the p.m. peak hour.

(gg) At the 3rd Street / J Street intersection, modify the southbound I-5 off-ramp approach to the intersection to provide one left-through lane, two through lanes, and one right-turn lane. Mitigation of impacts to less-than-significant is not feasible. The City has included the cost of this improvement in the RDSP Financing Plan which will be approved for the RDSP. The fair share contribution shall be collected by the City prior to the issuance of building permits. To mitigate the impact would require adding lanes to some or all of the intersecting roadways, which would be inconsistent with the City of Sacramento General Plan and River District Specific Plan goals and objectives to create pedestrian-friendly and complete streets and Smart Growth policies and would create secondary impacts to adjacent properties through the acquisition of additional right of way; this right of way is currently unavailable.

With implementation of this mitigation measure, the level of service would remain at LOS F (113.4 seconds delay) in the a.m. peak hour, and would be maintained at LOS D (37.9 seconds delay) in the p.m. peak hour.

Intersection	Traffic Control	Peak Hour	Delay Type	Cumulative Conditions		Cumulative Conditions With Mitigation Measures	
				LOS ¹	Delay ²	LOS ¹	Delay ²
1. I-5 SB Ramps / Richards Boulevard	Signal	AM	Average	C	25.0	C	25.1
		PM		F	135.0	E	75.0
2. I-5 NB Ramps / Richards Boulevard	Signal	AM	Average	C	23.1	D	45.2
		PM		E	71.7	D	44.8
3. Bercut Drive / Richards Boulevard	Signal	AM	Average	D	43.5	D	45.6
		PM		F	153.8	F	107.8
5. North 4th Street / Richards Boulevard	Signal	AM	Average	F	119.9	E	78.7
		PM		F	225.0	E	74.2
7. 7th Street / Richards Boulevard	Signal	AM	Average	F	169.5	D	53.4
		PM		F	291.2	E	79.6
10. Street W / Richards Boulevard	Signal	AM	Average	E	74.7	E	77.5
		PM		F	161.0	E	78.5
11. 12th Street / Richards Boulevard	Signal	AM	Average	D	46.4	C	25.7
		PM		F	116.4	D	48.9
12. 16th Street / Richards Boulevard	Signal	AM	Average	C	21.6	B	15.8
		PM		F	184.4	F	99.9
15. Vine Street / Street W	Signal	AM	Average	F	86.1	D	40.9
		PM		F	402.9	E	63.2

Table 5.10-24							
2035 Cumulative - Mitigated Intersection Levels of Service							
16. Vine Street / 12th Street	Signal	AM	Average	F	132.5	D	51.4
		PM		F	212.5	D	53.0
17. 16th Street / Vine St	Signal	AM	Average	C	31.3	B	18.9
		PM		F	542.1	F	361.2
31. 10th Street / North B Street	Signal	AM	Average	E	71.9	D	52.9
		PM		F	126.4	E	74.6
33. 14th Street / North B Street	Signal	AM	Average	D	36.7	C	25.3
		PM		F	202.8	F	105.7
34. Ahern Street / North B Street	Signal	AM	Average	F	90.9	E	58.0
		PM		F	164.2	F	109.1
39. 10th Street / C Street	Signal	AM	Average	F	110.8	D	48.0
		PM		F	187.4	E	66.3
41. 14th Street / C Street	All Way Stop (Signal Mitigated)	AM	Average	F	206.6	B	15.3
		PM		F	563.3	E	65.8
42. 16th Street / C Street	Signal	AM	Average	A	6.7	C	20.4
		PM		F	103.4	E	72.1
43. 7th Street / F Street	Signal	AM	Average	F	259.8	C	26.5
		PM		F	609.8	F	106.2
44. 10th Street / F Street	All Way Stop (Signal Mitigated)	AM	Average	F	109.9	B	12.3
		PM		F	418.5	D	48.5
45. 14th Street / F Street	Signal	AM	Average	E	64.4	C	28.7
		PM		F	146.9	F	88.8
46. 7th Street / G Street	Signal	AM	Average	D	51.9	D	39.9
		PM		F	223.3	F	132.2
48. 5th Street / H Street	Signal	AM	Average	F	253.6	D	40.5
		PM		F	222.0	E	74.7
49. 6th Street / H Street	Signal	AM	Average	C	31.1	D	38.6
		PM		F	126.5	F	128.4
51. 16th Street / H Street	Signal	AM	Average	C	24.3	C	24.3
		PM		F	193.3	E	61.9
53. 5th Street / I Street	Signal	AM	Average	C	25.4	C	22.5
		PM		F	154.8	E	57.8
54. 6th Street / I Street	Signal	AM	Average	D	40.9	D	36.7
		PM		F	269.1	E	68.6
56. 3rd Street / J Street	Signal	AM	Average	F	122.0	F	113.4
		PM		D	38.0	D	37.9
Source: Dowling Associates, Inc., 2010							
¹ LOS = Level of Service							

Table 5.10-24	
2035 Cumulative - Mitigated Intersection Levels of Service	
² Delay = Average Delay in seconds	
Notes: Intersections shown in italics are in the Core Area	
<i>Bold values indicate significant impacts.</i>	

Impact 5.10-11	Implementation of the RDSP could result in potentially significant impact on study roadway segments in 2035.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to roadways than area covered by the General Plan (Page 6.12-76, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	<i>MM 5.10-11</i>	<i>None available</i>
Residual Significance	<i>Significant and Unavoidable</i>	

Table 5.10-25				
Roadway levels of service – 2035 Cumulative Conditions				
Roadway Segment	Lanes	Weekday		
		ADT	LOS	V/C
1. Jibboom Street south of Richards Boulevard	2	17,073	E	0.95
2. Richards Boulevard east of Bercut Drive	4	36,975	F	1.23
3. Richards Boulevard east of 5th Street	4	29,571	E	0.99
4. Richards Boulevard east of Dos Rios Street	4	34,140	F	1.14
5. Vine Street east of 10th Street	2	11,680	C	0.78
6. 12th Street south of Richards Boulevard	5	33,300	D	0.89
7. 16th Street south of Richards Boulevard	4	32,045	F	1.07
8. 12th Street north of Richards Boulevard	4	42,260	F	1.17
9. 16th Street north of Richards Boulevard	3	43,685	F	1.62
10. Vine Street east of 12th Street	3	16,935	C	0.75
11. Richards Boulevard east of 12th Street	4	21,920	C	0.73
12. Bannon Street east of Bercut Drive	2	5,130	A	0.34
13. Bannon Street east of 5th Street	2	10,130	B	0.68
14. Bannon Street east of 10th Street	2	8,210	A	0.55
15. North B Street west of 7th Street	2	10,665	C	0.71
16. North B Street east of 7th Street	2	13,490	D	0.90
17. North B Street east of 10th Street	3	21,750	E	0.97

Table 5.10-25 Roadway levels of service – 2035 Cumulative Conditions				
Roadway Segment	Lanes	Weekday		
		ADT	LOS	V/C
18. North B Street east of 12th Street	4	19,410	B	0.65
19. Truxel Bridge	4	34,615	E	0.96
20. North 4th Street north of Richards Boulevard	2	15,800	F	1.05
21. North 4th Street south of Richards Boulevard	2	17,130	F	1.14
22. North 4th Street south of Bannon Street	2	16,520	F	1.10
23. 5th Street south of Richards Boulevard	2	11,760	C	0.78
24. 5th Street south of Bannon Street	2	11,650	C	0.78
25. 7th Street south of Richards Boulevard	4	23,905	C	0.80
26. 7th Street south of Bannon Street	4	23,860	C	0.80
27. 10th Street south of Richards Boulevard	2	8,435	A	0.56
28. 10th Street south of Bannon Street	2	8,790	A	0.59
29. 10th Street south of Railyards Boulevard	2	21,360	F	1.42
30. Dos Rios Street south of Richards Boulevard	2	2,960	A	0.20
31. 12th Street south of North B Street	4	40,350	F	1.12
32. 14th Street south of North B Street	2	16,870	E	0.94
33. 16th Street south of North B Street	4	34,430	E	0.96
<p><i>Source: Dowling Associates, Inc., 2010</i></p> <p><i>ADT = Averaged daily traffic</i></p> <p><i>LOS = Level of service</i></p> <p><i>V/C = Volume/Capacity</i></p> <p><i>Bold values indicate significant impacts.</i></p>				

The traffic generated by RDSP would result in significant traffic impact under cumulative conditions for the following roadway segments in the study area:

- (a) Richards Boulevard east of Bercut Drive
- (b) Richards Boulevard east of Dos Rios Street
- (c) 16th Street south of Richards Boulevard
- (d) 12th Street north of Richards Boulevard
- (e) 16th Street north of Richards Boulevard
- (f) North 4th Street north of Richards Boulevard
- (g) North 4th Street south of Richards Boulevard
- (h) North 4th Street south of Bannon Street
- (i) 10th Street south of Railyards Boulevard
- (j) 12th Street south of North B Street

Mitigation Measure

No mitigation measure was found that would be feasible to lessen the impact. To mitigate the impact would require widening of impacted RDSP roadways to add vehicle lanes to increase vehicle capacity, which would be inconsistent with the City of Sacramento goals and objectives to create pedestrian-friendly streets and Smart Growth policies. Hence, the impact would remain **significant and unavoidable**. Implementation of MM (j) and MM (k) would improve Vine Street east of 12th Street to LOS A ($v/c=0.56$).

Impact 5.10-12	Implementation of the RDSP could result in potentially significant impact on study freeway mainline segments in 2035.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the freeway mainline than area covered by the General Plan (Page 6.12-11, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.10-12	<i>None available</i>
Residual Significance	<i>Significant and Unavoidable</i>	

Table 5.10-26 Freeway mainline operations – Cumulative Conditions (2035)						
Location	AM Peak Hour			PM Peak Hour		
	Volume	V/C ¹	LOS ²	Volume	V/C ¹	LOS ²
Northbound I-5						
South of L Street on-ramp	7,340	0.91	E	7,715	0.96	E
South of I Street on-ramp	8,120	1.01	F	8,880	1.10	F
South of Richards Blvd off-ramp	8,926	0.94	E	10,176	1.07	F
North of Richards Blvd off-ramp	8,009	1.00	E	9,440	1.17	F
North of Richards Blvd on-ramp	9,374	0.98	E	11,138	1.17	F
Southbound I-5						
North of Richards Blvd off-ramp	11,670	1.22	F	10,676	1.12	F
North of Richards Blvd on-ramp	8,959	1.11	F	8,299	1.03	F
North of J Street off-ramp	9,758	1.02	F	11,165	1.17	F
North of I Street on-ramp	7,751	0.96	E	9,340	1.16	F
Northbound SR 160						
At the American River	4,107	0.49	C	8,551	1.03	F
Southbound SR 160						
At the American River	6,381	0.77	D	5,136	0.62	C

Source: Dowling Associates, Inc., 2010

¹ $V/C = Volume / Capacity$

² $LOS = Level\ of\ Service$

Note: **Bold** values indicate significant impacts.

The traffic generated by RDSP would result in significant traffic impact in 2035 for the following freeway mainline segments in the study area:

- (a) Northbound I-5 south of I Street on-ramp – AM and PM peak hours
- (b) Northbound I-5 south of Richards Boulevard off-ramp – PM peak hour
- (c) Northbound I-5 north of Richards Boulevard off-ramp – PM peak hour
- (d) Northbound I-5 north of Richards Boulevard on-ramp – PM peak hour
- (e) Southbound I-5 north of Richards Boulevard off-ramp – AM and PM peak hours
- (f) Southbound I-5 north of Richards Boulevard on-ramp – AM and PM peak hours
- (g) Southbound I-5 north of J Street off-ramp – AM and PM peak hours
- (h) Southbound I-5 north of I Street on-ramp – PM peak hour
- (i) Northbound SR 160 at the American River – PM peak hour

Mitigation Measure

No feasible mitigation measure was found to lessen the impact on these freeway segments. To fully mitigate this impact, it would be necessary to reduce the RDSP traffic such that no additional traffic were added to the freeway segment, or improve the operation of the freeway segment from LOS F to LOS E. Widening the freeway would reduce the impact, but was not considered feasible because of the numerous transportation structures that would need to be modified/ replaced and related secondary environment.

The City is participating in a multi-agency committee that is developing a regional impact fees for the I-5 corridor, which may improve all freeways within the study area. The RDSP shall be required to pay the I-5 corridor fees that is in effect at the time of issuance of building permits. However, the contribution of these funds does not ensure that the project’s impacts on the mainline freeway will be fully mitigated. Therefore the impact of the project will remain **significant and unavoidable**.

Impact 5.10-13	Implementation of the RDSP could result in potentially significant impact on study freeway interchanges in 2035.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the freeway interchange than area covered by the General Plan (Page 6.12-85, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	MM 5.10-13	<i>Prior to building permit, each developer shall pay the I-5 impact fee that is in effect at the time of the issuance of building permit.</i>
Residual Significance	<i>Significant and Unavoidable</i>	

Table 5.10-27 Freeway interchange operations – Cumulative Conditions (2035)						
	AM Peak Hour			PM Peak Hour		
	LOS ²	Density ³ (Flow)	Volume	LOS ²	Density ³ (Flow)	Volume
Northbound I-5						
P Street to J Street weave	D	28.23	9,144	C	22.69	8,160
L Street on-ramp	C	(851)	780	C	(1271)	1,165
I Street on-ramp	C	20.09	806	C	25.38	1,296
Richards Boulevard off-ramp	D	29.48	917	F	41.00	736
Richards Boulevard on-ramp	D	(1489)	1,365	E	(1852)	1,698
Garden Highway off-ramp	D	30.69	866	F	46.56	1,039
Southbound I-5						
Garden Highway on-ramp	C	(334)	306	C	(789)	723
Richards Boulevard off-ramp	F	48.05	2,711	E	51.78	2,377
Richards Boulevard on-ramp	C	(872)	799	F	(3127)	2,866
J Street off-ramp	C	23.32	2,007	F	26.69	1,825
I Street to Q Street weave	C	23.82	8,000	D	32.74	10,425
<p><i>Source: Dowling Associates, Inc., 2010</i></p> <p>¹ LOS = Level of Service</p> <p>² Numbers with decimals indicate the density of passenger vehicles per mile per lane in the merge or diverge area. Whole numbers indicate the ramp flow rate in passenger car equivalents where a lane is added to the freeway at an on-ramp.</p> <p>Note: Bold values indicate significant impacts.</p>						

The traffic generated by RDSP would result in significant traffic impact the following freeway interchange locations within the study area:

- (a) Northbound I-5 off-ramp to Richards Boulevard – PM peak hour
- (b) Northbound I-5 off-ramp to Garden Highway – PM peak hour
- (c) Southbound I-5 off-ramp to Richards Boulevard – AM peak hour
- (d) Southbound I-5 on-ramp from Richards Boulevard – PM peak hour
- (e) Southbound I-5 off-ramp to J Street – PM peak hour

Mitigation Measure

No feasible mitigation measures were identified that would reduce the impact of the project on I-5 southbound on-ramp from Richards Boulevard. The City is participating in a multi-agency committee that is developing a regional impact fees for the I-5 corridor, which may improve all freeways within the study area. The RDSP shall be required to pay the I-5 corridor fees that is in effect at the time of issuance of building permits. However, the contribution of these funds does not ensure that the project’s impacts on the freeway ramp will be fully mitigated. Therefore the impact of the project will remain **significant and unavoidable**.

Impact 5.10-14	Implementation of the RDSP could result in potentially significant impact on study freeway off-ramp queues in 2035.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the freeway off-ramp than area covered by the General Plan (Page 6.12-85, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Potentially Significant</i>	
Additional Mitigation for Project	<i>MM 5.10-14</i>	<i>Implement MM 5.10-2(gg)</i>
Residual Significance	<i>Significant and Unavoidable</i>	

Table 5.10-28 Interstate 5 exit ramp queues – Baseline Conditions (2015)			
Exit Ramp	Storage (feet)	Queues (feet)	
		AM	PM
J Street Northbound	720	1,153	174
Richards Boulevard Northbound	680	565	514
Richards Boulevard Southbound	790	513	641
J Street Southbound	1,215	765	552
<i>Source: Dowling Associates, Inc., 2010</i>			
<i>Note: Bold values indicate significant impacts.</i>			

The traffic generated by RDSP would result in significant traffic impact for one freeway off-ramp queue in the study area:

- (a) I-5 northbound off-ramp to J Street – AM peak hour.

Mitigation Measure

With implementation of MM (gg), freeway off-ramp queue at the I-5 northbound off-ramp at J Street would be 1028 feet in the a.m. peak hour, and would exceed the available storage. No other feasible mitigation measures were identified at this location. Therefore, the impact on the transportation system is considered **significant and unavoidable**.

Impact 5.10-15	Implementation of the RDSP could adversely affect transit facilities in 2035.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the transit facilities than area covered by the General Plan (Page 6.12-86, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.10-15	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

RDSP development in 2035 would increase the number of transit trips in the area and increase the loading on current RT bus routes and light rail. The RDSP would increase demand for transit services in 2035. Compared to existing conditions, the RDSP development would generate 8,237 more daily transit trips, 821 more AM peak hour transit trips, and 867 more PM peak hour transit trips in 2035.

RDSP development would generate demand for light rail service in 2035. The DNA corridor is expected to be fully operational and would link from downtown through the RDSP area to the Sacramento International Airport. The Railyards and the Sacramento Valley Stations would provide light rail connections for the project with LRT service at 15-minute headways during peak periods. The additional transit demands should be reasonably accommodated by the new trains and other RT bus routes in the vicinity.

RDSP development would generate demand for Amtrak service, particularly the Capitol Express service to the greater Bay Area. However, considering the recent service expansion and added capacity, the addition of RDSP generated trips would likely be accommodated.

Mitigation Measure

None required.

Impact 5.10-16	Implementation of the RDSP could adversely affect bicycle facilities in 2035.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the bicycle facilities than area covered by the General Plan (Page 6.12-88, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.10-16	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

Implementation of RDSP would construct a system of Class I, II, and III bicycle facilities throughout the RDSP area. The provision of additional bicycle linkages throughout the area plan would enhance the overall bicycle system and allow bicyclists to move throughout the area on dedicated bicycle routes instead of using vehicle lanes.

Implementation of the RDSP would not remove any existing bicycle facility or any facility that is planned in the 2010 City of Sacramento Bikeway Master Plan. Therefore, implementation of the RDSP would not adversely affect bicycle facilities and the impact would be less than significant.

Mitigation Measure

None required.

Impact 5.10-17	Implementation of the RDSP could adversely affect pedestrian facilities in 2035.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the pedestrian facilities than area covered by the General Plan (Page 6.12-87, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.10-17	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

Implementation of RDSP would construct a curb, gutter, sidewalks and planters per City standards. Several Street cross sections have sidewalk wider than standard width and are considered enhancement and the impact would be less than significant.

Mitigation Measure

None required.

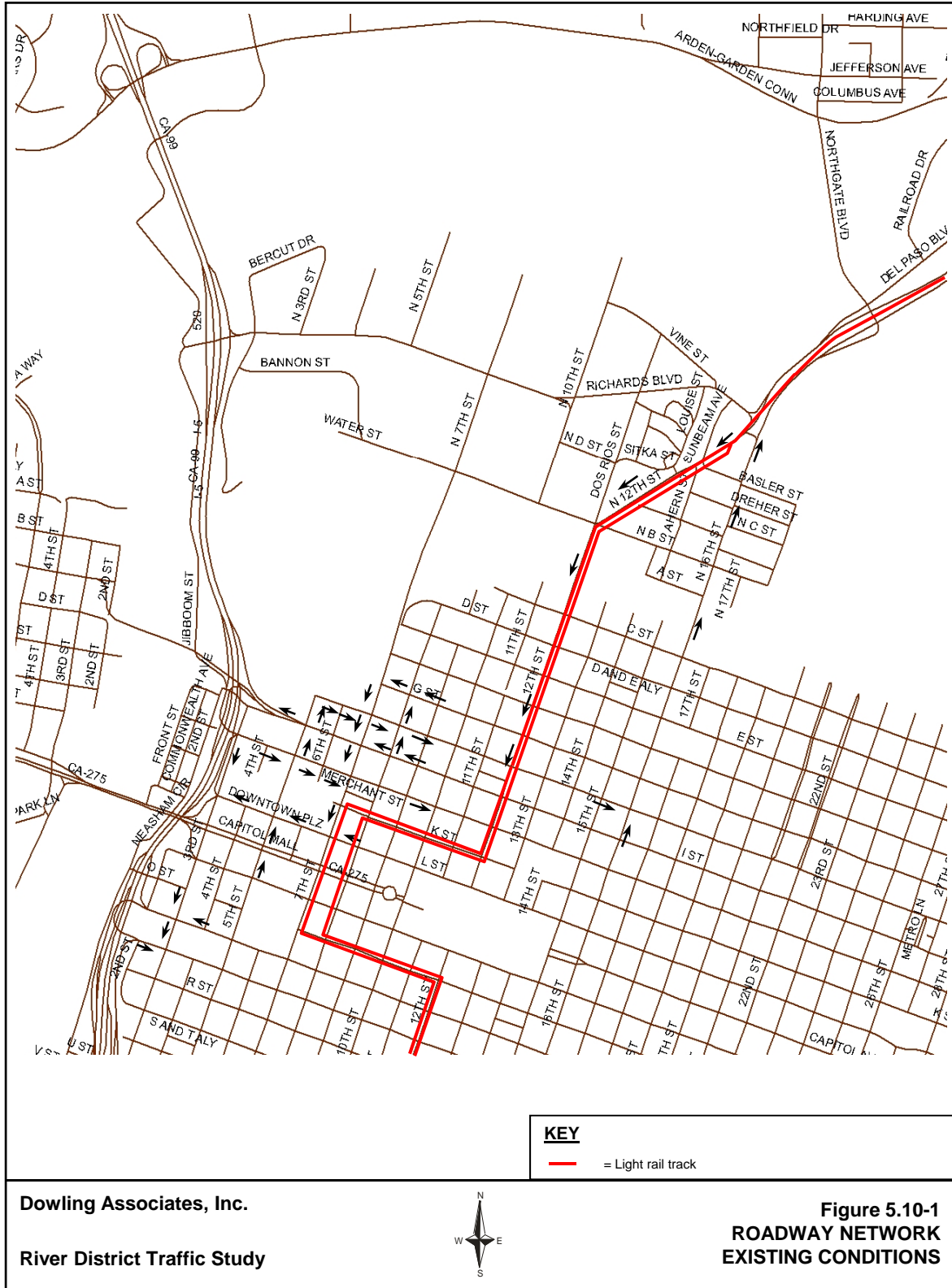
Impact 5.10-18	Implementation of the RDSP could adversely affect parking facilities in 2035.	
Central City Community Plan Area is not an area of the City that would generate more or additional impacts to the parking facilities than area covered by the General Plan (Page 6.12-89, MEIR).		
Mitigation included in General Plan EIR applicable to project	None	
Project significance after mitigation included in General Plan EIR	<i>Less than Significant</i>	
Additional Mitigation for Project	MM 5.10-18	<i>None required</i>
Residual Significance	<i>Less than Significant</i>	

RDSP will provide parking spaces per City Code requirement. Therefore, the impact would be less than significant.

Mitigation Measure

None required.

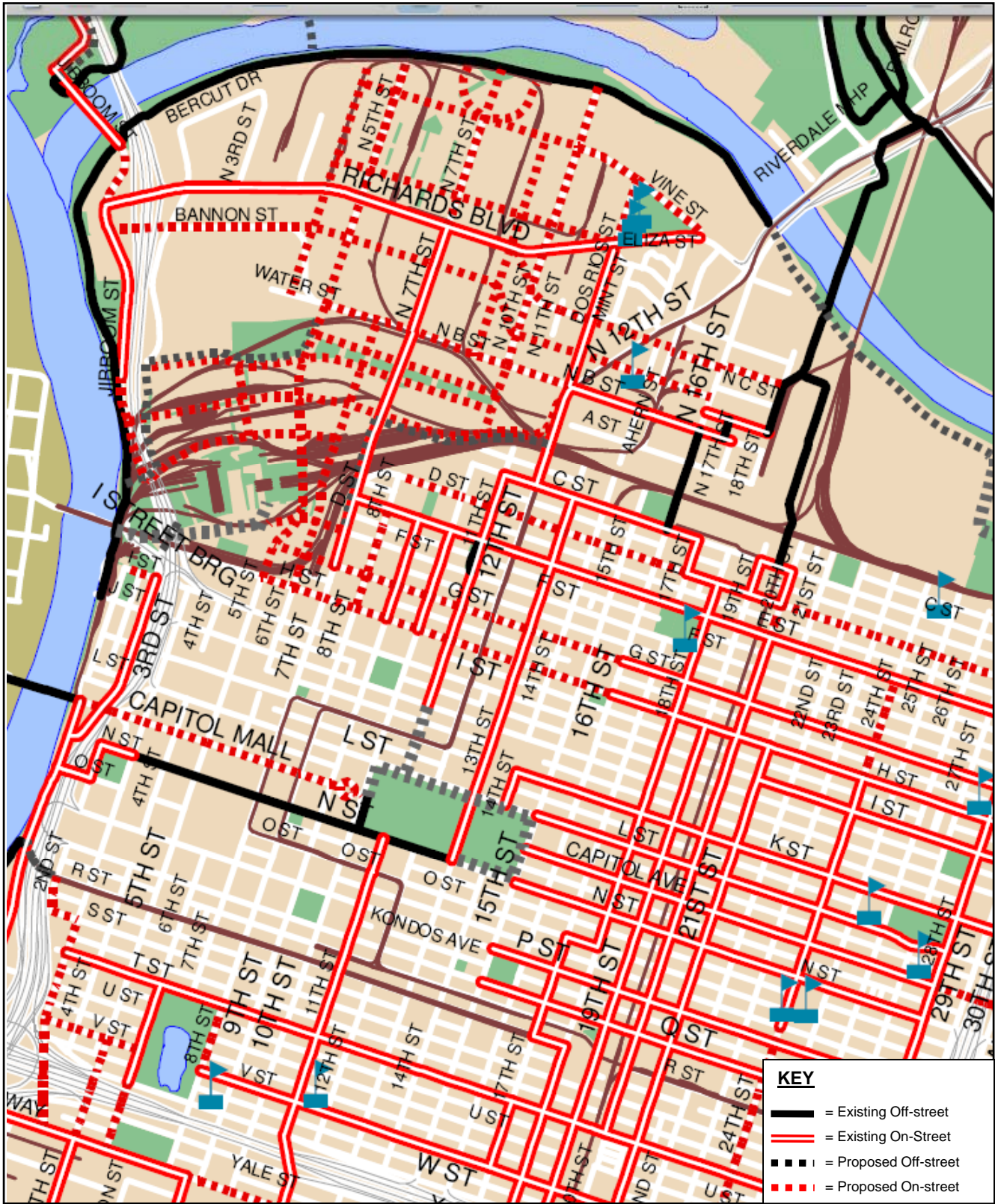
Figure 5.10-1: Existing Roadway Network



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Figure 5.10-1
ROADWAY NETWORK
EXISTING CONDITIONS

Figure 5.10-2: Existing and Proposed Bikeways



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**Figure 5.10-2
EXISTING AND PROPOSED
BIKEWAYS**

Source: City of Sacramento Existing and Proposed Bikeways

Figure 5.10-3: Study Locations on the Existing Network

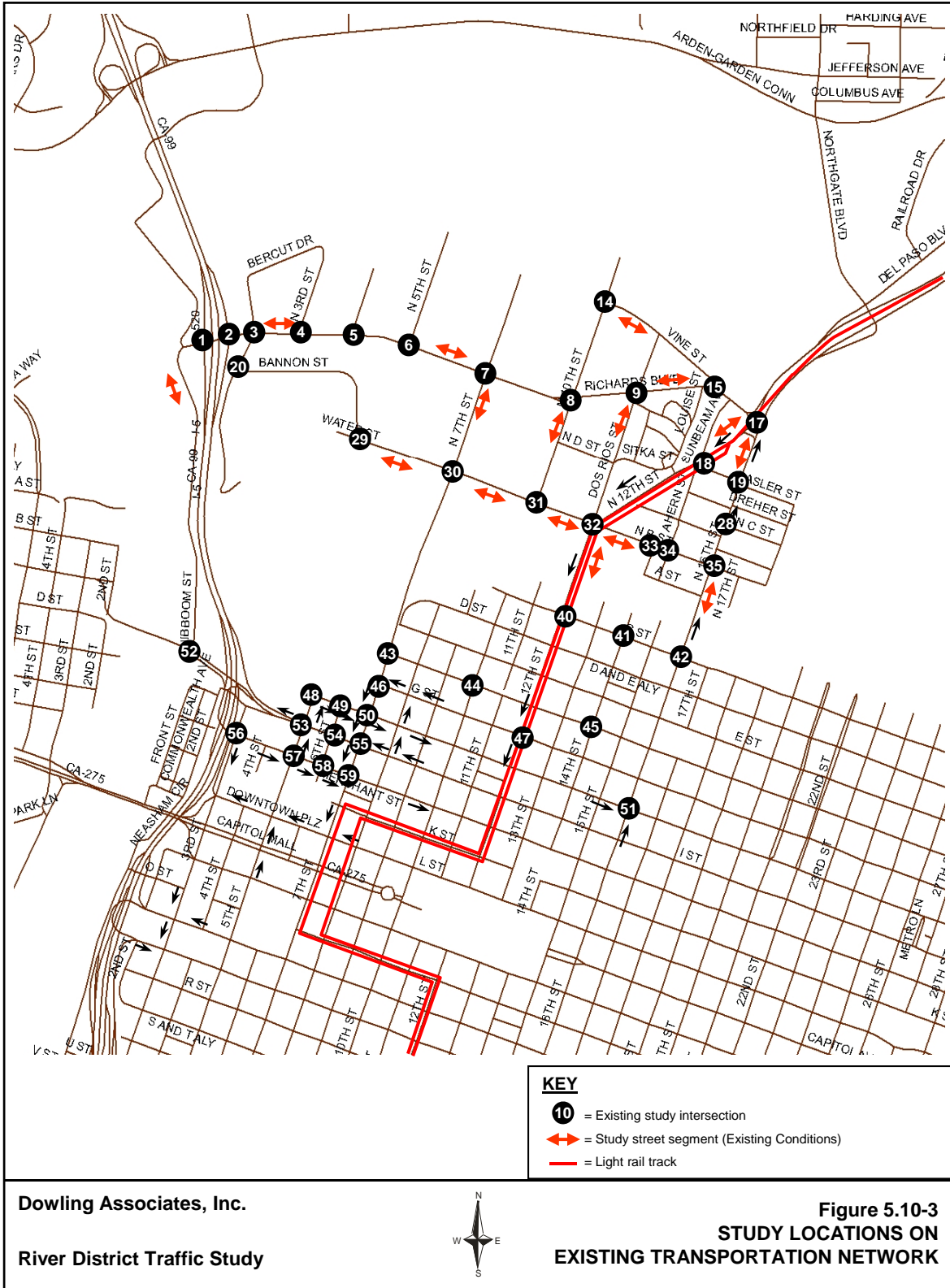
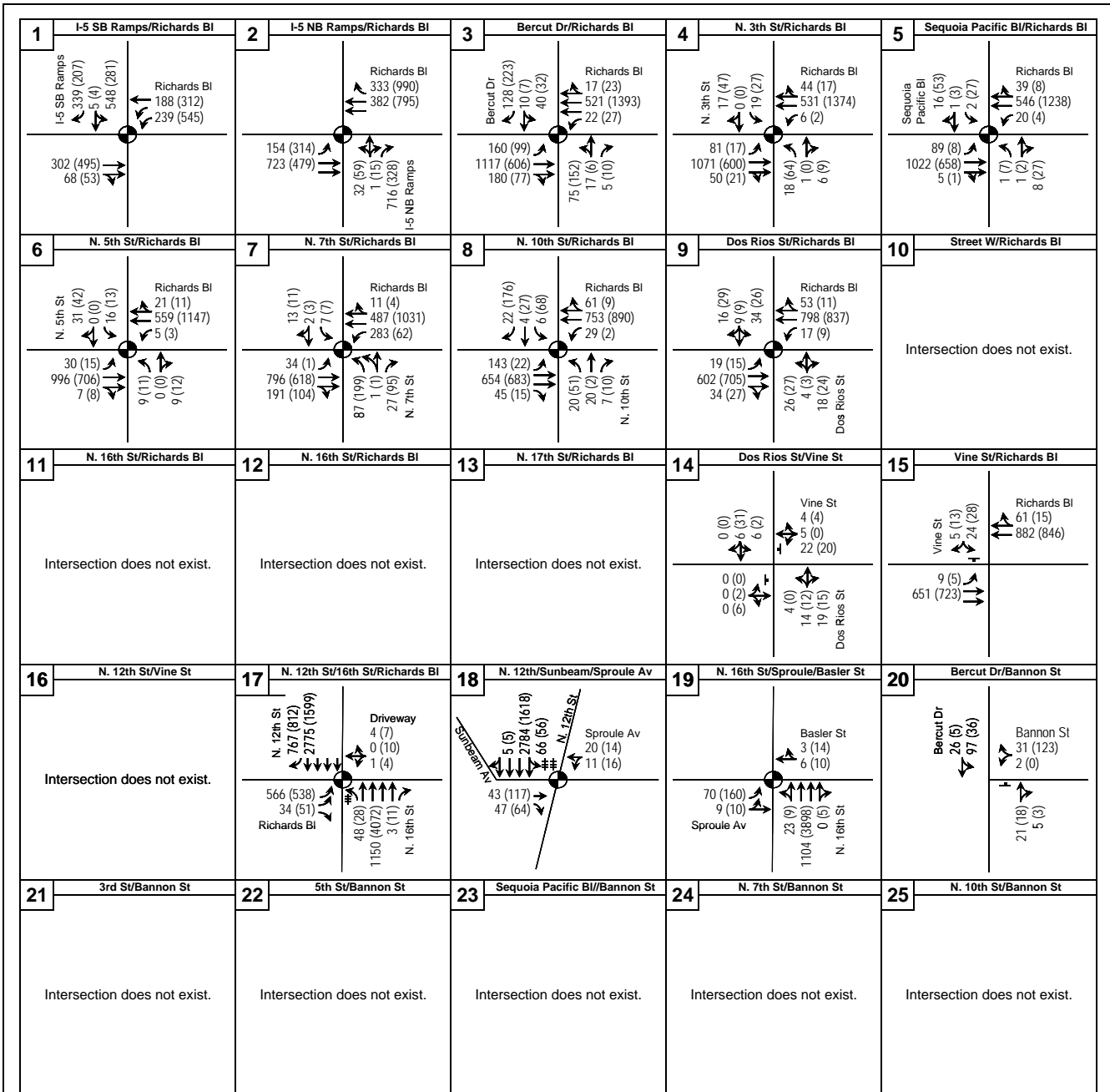


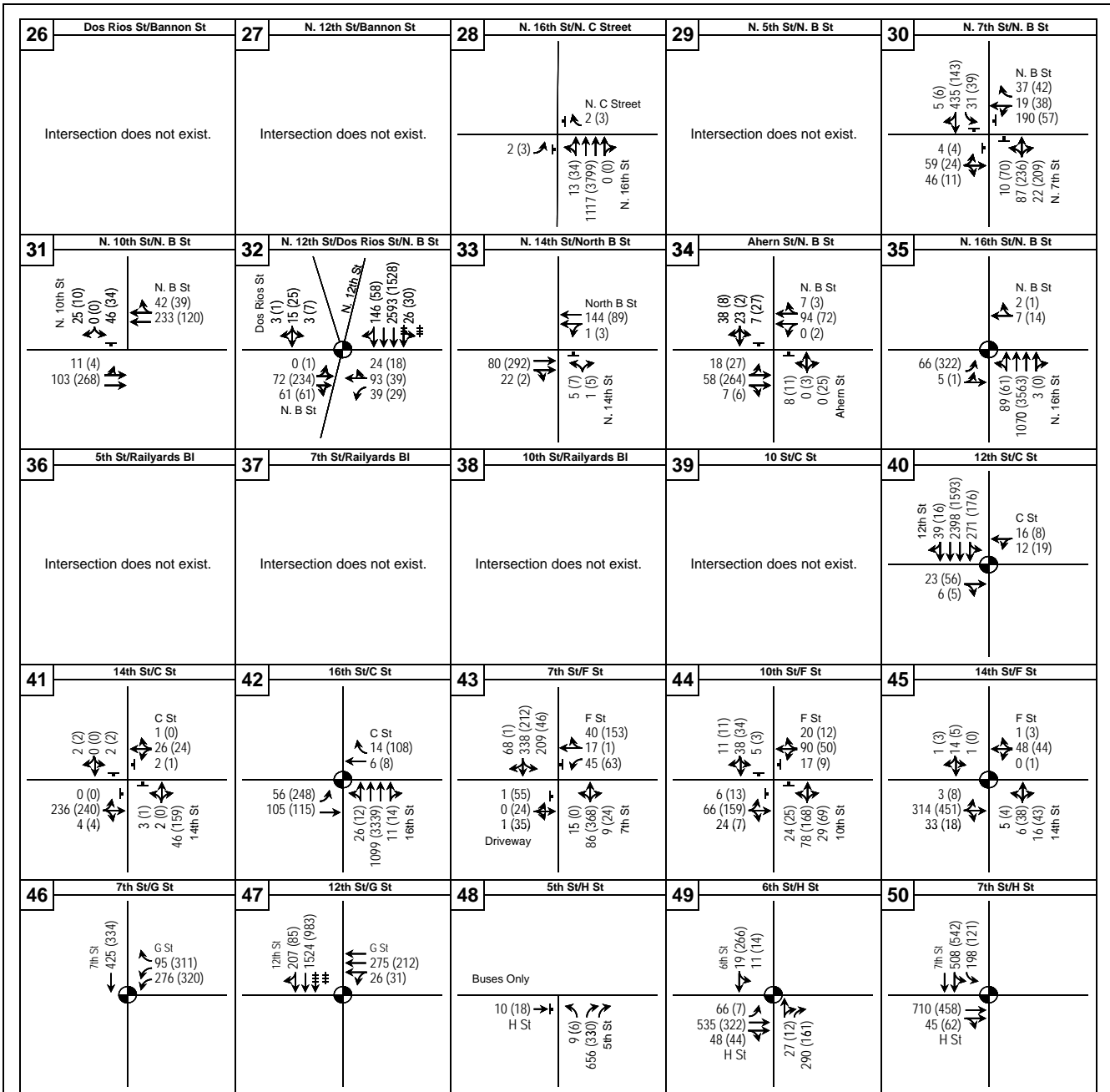
Figure 5.10-4: Existing Traffic Volumes, Lanes, and Traffic Controls



KEY

- 31 (27) = AM (PM) peak hour traffic volume
- ⊙ = Signalized intersection
- ↔ = Intersection approach lane
- ⊙ = Lane provided during AM peak, only
- ☑ = Lane not provided during PM peak

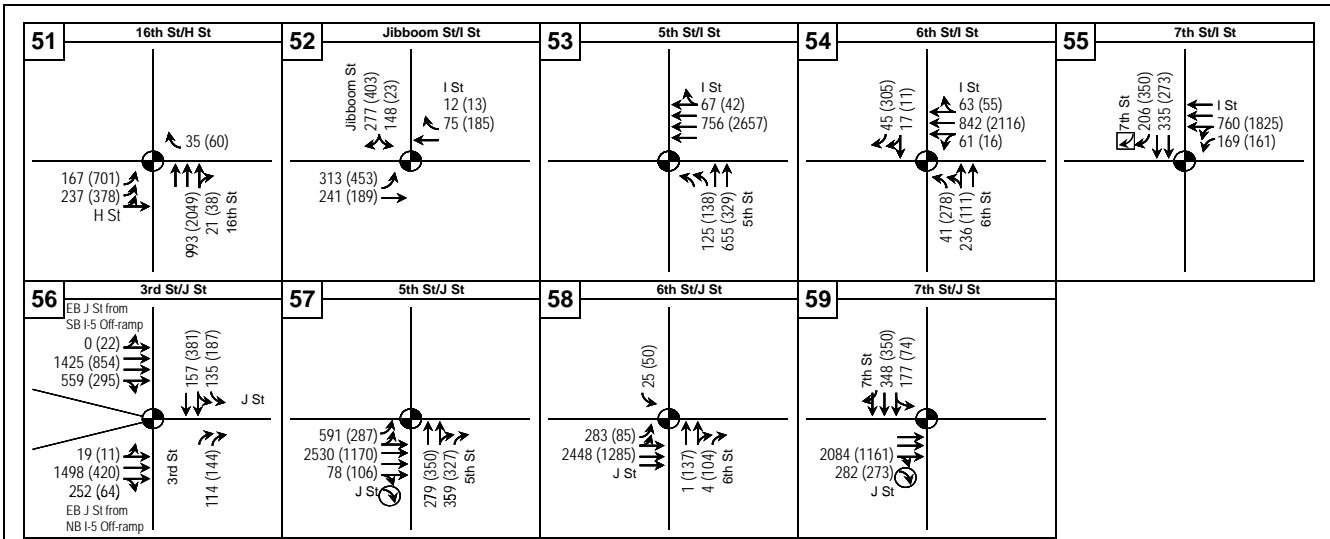




KEY

- 31 (27) = AM (PM) peak hour traffic volume
- ⊙ = Signalized intersection
- ↔ = Intersection approach lane
- ☑ = Lane provided during AM peak, only
- ☒ = Lane not provided during PM peak





KEY

- 31 (27) = AM (PM) peak hour traffic volume
- ⊙ = Signalized intersection
- ↔ = Intersection approach lane
- ⊙ = Lane provided during AM peak, only
- ☑ = Lane not provided during PM peak

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Figure 5.10-4
EXISTING TRAFFIC VOLUMES,
LANES, AND TRAFFIC CONTROLS

Figure 5.10-5: Roadway Network 2015 Baseline Conditions

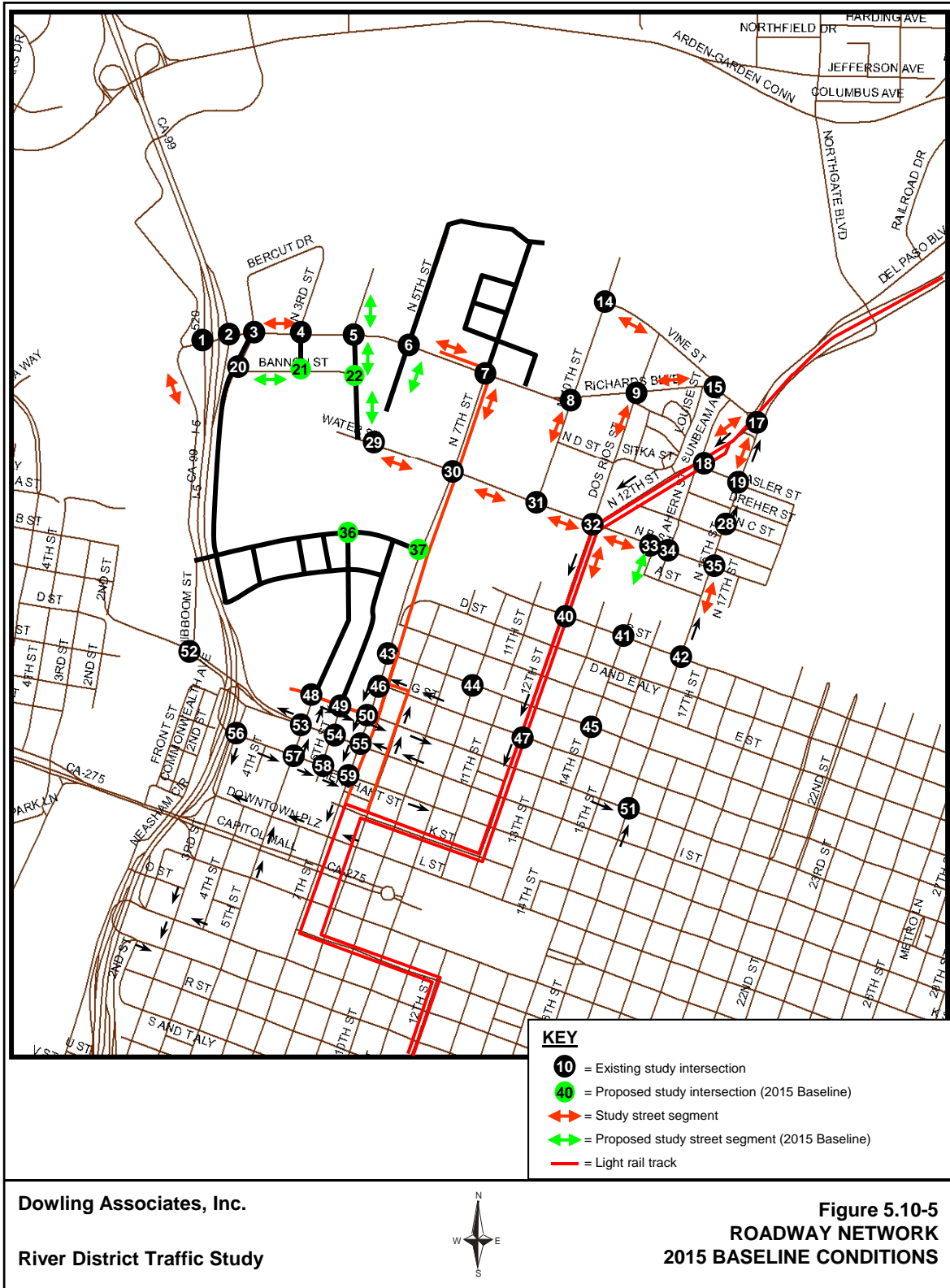
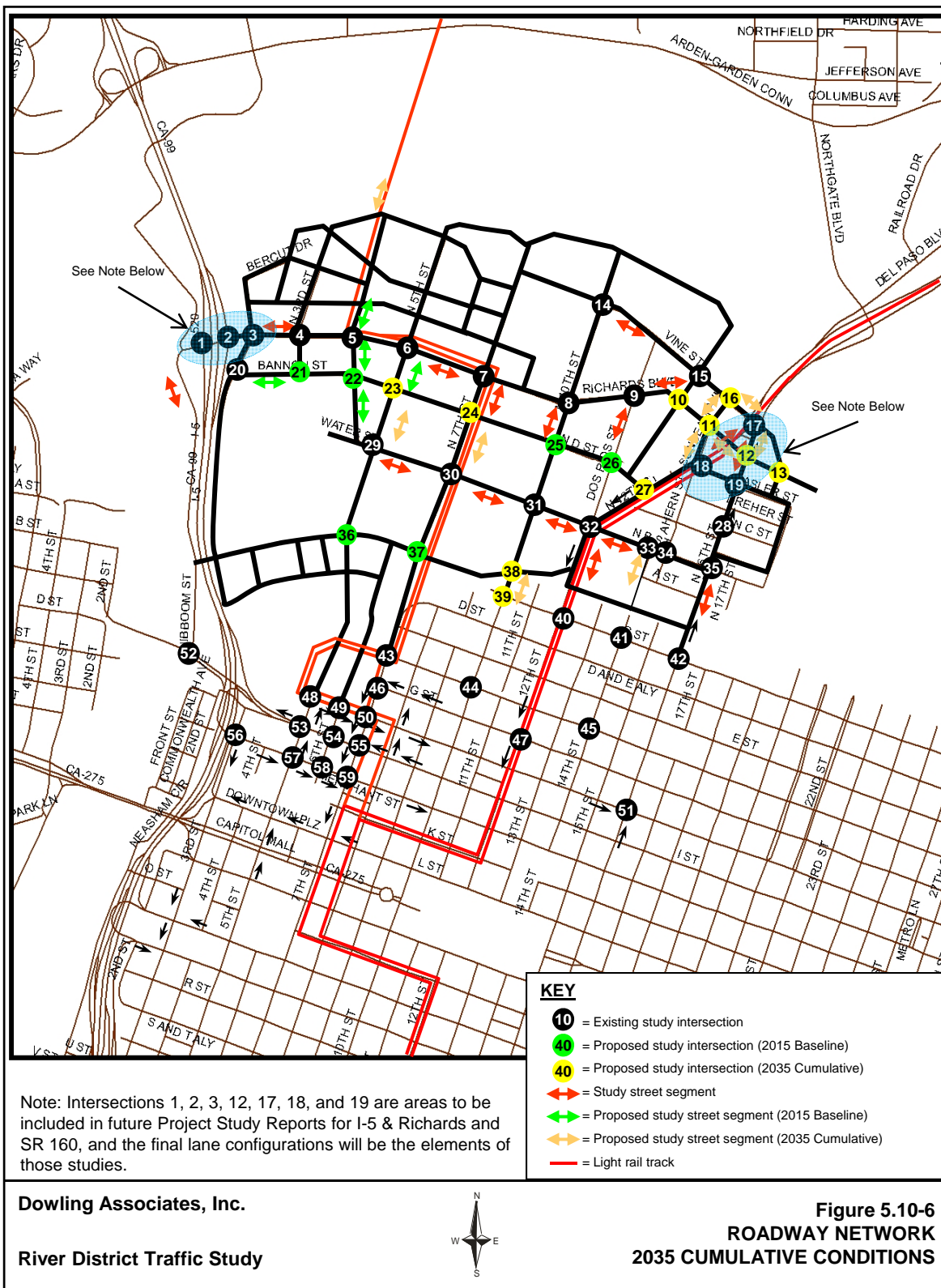


Figure 5.10-6: Roadway Network 2035 Cumulative Conditions



CHAPTER 6: CEQA CONSIDERATIONS

Chapter 6	CEQA Considerations
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Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. Therefore, as part of this analysis, the EIR must identify:

1. significant environmental effects of the Proposed Project;
2. significant environmental effects that cannot be avoided if the Proposed Project is implemented;
3. significant irreversible environmental changes that would result from implementation of the Proposed Project;
4. growth-inducing impacts of the Proposed Project;
5. mitigation measures proposed to minimize the significant effects; and
6. alternatives to the Proposed Project.

Chapter 2 of this DEIR, Summary, provides, in tabular form, a list of all of the potential impacts associated with construction and implementation of the RDSP, the levels of significance prior to mitigation, the proposed mitigation measures(5), and the resulting level of significance.

Chapter 7 of this DEIR, Alternatives, provides the analyses of the proposed alternatives (6) to the project that could reduce the Significant and Unavoidable impacts of the project.

(1) Significant Environmental Effects

Chapter 5 of this EIR provides a comprehensive identification of the Proposed Project’s environmental effects, including the level of significance both before and after mitigation.

(2) Significant Environmental Effects that Cannot be Avoided if the Proposed Project is Implemented

Significant impacts that can be mitigated to some extent, but not to a level of insignificance are called “Significant and Unavoidable” impacts. As noted in Chapter 5 (Sections 5.1 through 5.10), the project-specific and cumulative impacts that cannot be mitigated to a less-than-significant level if the project is approved as proposed include:

Impact
Number

- | | |
|-------|---|
| 5.3-1 | Implementation of the RDSP could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines Section 15064.5. (for State Printing Plant only). |
| 5.3-2 | Implementation of the RDSP could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5. |
| 5.3-3 | Implementation of the RDSP, in conjunction with other development within the Central Valley, could cause a substantial change in the significance of a historic or archaeological resource as defined in CEQA Guidelines Section 15064.5. |

- 5.6-1 Implementation of the RDSP could result in exterior noise levels that are above the upper value of the normally acceptable category for various land uses due to an increase in noise levels.
- 5.6-2 Implementation of the RDSP could result in residential interior noise levels of Ldn 45 or greater caused by an increase in noise levels.
- 5.6-4 Implementation of the RDSP could result in existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.
- 5.10-1 Implementation of the RDSP could result in potentially significant impact at study intersections in 2015.
- 5.10-2 Implementation of the RDSP could result in potentially significant impact on study roadway segments in 2015.
- 5.10-3 Implementation of the RDSP could result in potentially significant impact on study freeway mainline segments in 2015.
- 5.10-4 Implementation of the RDSP could result in potentially significant impact on study freeway interchanges in 2015.
- 5.10-5 Implementation of the RDSP could result in potentially significant impact on study freeway off-ramp queues in 2015.
- 5.10-10 Implementation of the RDSP could result in potentially significant impact at study intersections in 2035.
- 5.10-11 Implementation of the RDSP could result in potentially significant impact on study roadway segments in 2035.
- 5.10-12 Implementation of the RDSP could result in potentially significant impact on study freeway mainline segments in 2035.
- 5.10-13: Implementation of the RDSP could result in potentially significant impact on study freeway interchanges in 2035.
- 5.10-14 Implementation of the RDSP could result in potentially significant impact on study freeway off-ramp queues in 2035.

(3) Significant Irreversible Environmental Effects

Uses of nonrenewable resources during all phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project;

- The project would involve a large commitment of nonrenewable resources;
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Development of the Proposed Project would result in the continued commitment of the project area to urban development, thereby precluding any other uses for the lifespan of the project. Restoration of the site to a less developed condition would not be feasible given the degree of disturbance, the urbanization of the area, and the level of capital investment. It is important to note that the density of development assumed for the RDSP area in the General Plan is greater than the density proposed by the RDSP; however, the project would still result in the continuing development and redevelopment of the project area.

Due to the previous industrial type uses in the RDSP area, development in accordance with the proposed RDSP could result in the uncovering of contaminated soils or encountering of contaminated groundwater. The RDSP does not propose any new industrial uses, and it is anticipated that the amount of industrially-developed land would decrease with buildout of the RDSP. The proposed residential, retail, and office uses would probably use, transport, store, and dispose of less hazardous wastes than the continued use of the existing land uses, as described in Chapter 5.4, Hazards and Hazardous, of this DEIR. However, all activities would comply with applicable state and federal laws related to hazardous materials, which significantly reduces the likelihood and severity of accidents that could result in irreversible environmental damage.

Implementation of the Proposed Project would result in the long-term commitment of resources to urban development. The most notable significant irreversible impacts are alteration of the visual character of the site, increased generation of pollutants, and the short-term commitment of non-renewable and/or slowly renewable natural and energy resources, such as water resources during construction activities. Operations associated with future uses would also consume natural gas and electrical energy. These unavoidable consequences of urban growth are described in the appropriate sections in Chapter 5 of this DEIR.

Resources that would be permanently and continually consumed by project implementation include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources. With respect to operational activities, compliance with all applicable building codes, as well as mitigation measures, planning policies, and standard conservation features, would ensure that natural resources are conserved to the maximum extent possible. It is also possible that new technologies or systems will emerge, or will become more cost-effective or user-friendly, to further reduce the reliance upon nonrenewable natural resources. Nonetheless, construction activities related to the Proposed Project would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels, natural gas, and gasoline for automobiles and construction equipment.

(4) Growth Inducing Impacts

An EIR must discuss the ways in which a proposed project could foster economic and/or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity in the region, or through the establishment of policies that directly or indirectly encourage additional growth.

Economic Growth

Direct and indirect growth may also result from economic growth generated by a project. In addition to the employment generated by development consistent with the proposed RDSP, additional local employment could be generated through what is commonly referred to as the “multiplier effect”. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused

by the project. Indirect employment includes those additional jobs that are generated through the expenditure of direct employment associated with the project. For example, workers in the office and retail portions of the Proposed Project would spend money in the local economy and the expenditure of that money would result in additional jobs. Indirect jobs tend to be in relatively close proximity to the places of employment and residence.

Induced employment follows the economic effect of employment beyond the expenditures of the employees within the Proposed Project area to include jobs created by the stream of goods and services necessary to support businesses within the Proposed Project. For example, when a manufacturer buys or sells products, the employment associated with those inputs or outputs are considered induced employment.

Increased future employment generated by employee spending ultimately results in physical development to accommodate those employees. It is the site conditions, characteristics, and its specific location that will determine the type and magnitude of environmental impacts of this additional economic activity. Although an economic effect is assumed to result from the development of the RDSP, the actual environmental implications of this type of economic growth are too speculative to predict or evaluate, since they can be spread throughout the Sacramento metropolitan region and beyond.

Physical Growth

Although growth inducement itself is not considered an environmental effect, it could potentially lead to physical environmental effects. Growth in an area may result from the removal of physical impediments or restrictions to growth, as well as the removal of planning impediments resulting from land use plans and policies. In this context, physical growth impediments may include inadequate access to an area or the lack of essential public services (e.g., water service), while planning impediments may include restrictive zoning and/or general plan designations.

The proposed RDSP project would be developed in an area that contains established land uses and supporting infrastructure (roads, water distribution, wastewater and drainage collection, and energy distribution). New infrastructure is needed in order to serve the additional development envisioned by the RDSP and to provide for the improved circulation within the RDSP area.

As noted in Chapter 5.9, Public Utilities, the existing utility infrastructure capacity would be an obstacle to the growth proposed by the RDSP. Development of the RDSP would require the modification and/or replacement of the existing utility infrastructure in order to support the increased land use intensity associated with the Proposed Project. Facilities for water, waste water, drainage, and energy would all require upgrades or extensions within the RDSP area. No offsite public utility facilities are necessary. The utility improvements proposed for the RDSP would be sized to serve the anticipated growth within the Specific Plan area and would not accommodate new or more intensive growth outside of the RDSP area. For this reason, the installation of the proposed public utility infrastructure would not induce growth in areas outside of the proposed RDSP boundary.

Improvements to streets immediately adjacent to the project site (North 5th Street and North 7th Street) are anticipated to occur in order to serve both the increased population generated by the Proposed Project and the Railyards Specific Plan project. Although these off-site roadway improvements would be intended to facilitate improved circulation in and around the proposed RDSP area, they would not remove an obstacle for further redevelopment in the project area because the improvements to these roads are necessary to serve the Railyards Specific Plan, which lies south of the RDSP area. The roads would be constructed whether or not the RDSP is approved.

The RDSP proposes to extend the street grid pattern established in the Central City and the Railyards Specific Plan area to the RDSP area. This will involve acquisition of right of way and the demolition of existing structures. However, due to the geographical location of the RDSP area, these new streets would not result in induced

growth outside of the RDSP area. The RDSP area is bordered by rivers on the north and west and none of the new streets would result in the construction of a bridge over either river. The RDSP area is bordered on the south by the Railyards Specific Plan, an approved project that has not yet begun construction. The proposed new street grid within the RDSP area is not necessary in order to serve the Railyards Specific Plan, with the exception of the previously-approved extensions of 5th and 7th Streets. Sutter Park abuts the RDSP area on the east, so the proposed street extensions east of 18th Street would not result in induced growth east of the RDSP area.

Water service to the project site would be provided by existing transmission mains in North 5th Street, North 7th Street, and Richards Boulevard. Sanitary sewer from the project site would be conveyed to the existing pipelines in North 5th Street and North 7th Street, eventually flowing to the 33-inch main in Richards Boulevard. The only existing pipelines that would need to be replaced are on the north half of North 7th Street. No new water or sewer mains other than those required to serve the project site would be constructed. As such, the development of onsite water and sewer infrastructure to serve the project would not be sized to support other development in the project area.

Economic Effects

When an employee from the project goes out to lunch, the person who serves the project employee lunch holds a job that was indirectly caused by the Proposed Project. When the server then goes out and spends money in the economy, the jobs generated by this third-tier effect are considered induced employment.

The multiplier effect also considers the secondary effect of employee expenditures. Thus, it includes the economic effect of the dollars spent by those employees who support the employees of the project.

Impacts of Induced Growth

In addition to the growth of the Central City area from other development projects, the Proposed Project would increase the population within the Central City. However, the level of proposed development is less than could result from buildout of the RDSP area in accordance with the current zoning designations. The RDSP proposes floor area ratios, building height limitations, and other development standards that are more restrictive than the City's Zoning Code.

For this reason, the growth outside of the RDSP area that could result from development of the RDSP, was previously considered in the 2030 General Plan and no new impacts would result.

CHAPTER 7: ALTERNATIVES

Chapter 7

Alternatives

The purpose of this chapter is to identify and describe alternatives to the Proposed Project that would reduce or eliminate the significant impacts associated with construction and implementation of the RDSP project, while still meeting most, if not all, of the project objectives.

As noted in Chapter 3.0, Project Description, the objectives for the proposed RDSP project are:

- Provide a sense of place through the District's unique character, building, and site designs.
- Create distinct neighborhoods, each with its own characteristics.
- The River District's desirable location will support a diverse and robust economy
- Connect the RDSP area with Sacramento's downtown, the Railyards Specific Plan area, and the Alkali Flat neighborhood using roads, pedestrian and bicycle facilities, and public transportation routes.
- Integrate the RDSP area into the fabric of Sacramento. The area has been historically isolated from the City due to its location and lack of connecting infrastructure.
- Create a development that is a regional draw for the City due to its geographic location near downtown and adjacency to the City's two riverfronts.
- Create a sustainable community that uses green technology, encourages LEED-certified buildings, and conserves water.
- Support strategies to improve safety and social conditions.
- Transform the RDSP area from an underutilized area into a transit-oriented, mixed-use urban area.
- Strengthen the scenic environment and livability of the River District through development of public parks and open space.

As noted in Chapter 6, the Significant and Unavoidable impacts associated with the Proposed Project fall into three environmental issue areas: historic and cultural resources, noise and vibration, and traffic and circulation.

Historic and Cultural Resources

Impact 5.3-1 Implementation of the RDSP could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines Section 15064.5 (for State Printing Plant only).

Impact 5.3-2 Implementation of the RDSP could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.

Noise and Vibration

Impact 5.6-1 Implementation of the RDSP could result in exterior noise levels that are above the upper value of the normally acceptable category for various land uses due to an increase in noise levels.

Impact 5.6-2 Implementation of the RDSP could result in residential interior noise levels of Ldn 45 or greater caused by an increase in noise levels.

Impact 5.6-4 Implementation of the RDSP could result in existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.

Traffic and Circulation

Impact 5.10-1 Implementation of the RDSP could result in potentially significant impact at study intersections in 2015.

Impact 5.10-2 Implementation of the RDSP could result in potentially significant impact on study roadway segments in 2015.

Impact 5.10-3 Implementation of the RDSP could result in potentially significant impact on study freeway mainline segments in 2015.

Impact 5.10-4 Implementation of the RDSP could result in potentially significant impact on study freeway interchanges in 2015.

Impact 5.10-5 Implementation of the RDSP could result in potentially significant impact on study freeway off-ramp queues in 2015.

Impact 5.10-10 Implementation of the RDSP could result in potentially significant impact at study intersections in 2035.

Impact 5.10-11 Implementation of the RDSP could result in potentially significant impact on study roadway segments in 2035.

Impact 5.10-12 Implementation of the RDSP could result in potentially significant impact on study freeway mainline segments in 2035.

Impact 5.10-13 Implementation of the RDSP could result in potentially significant impact on study freeway interchanges in 2035.

Impact 5.10-14 Implementation of the RDSP could result in potentially significant impact on study freeway off-ramp queues in 2035.

Alternatives Considered and Dismissed from Further Consideration

The City gave consideration to a wide range of alternatives to the RDSP project that could reduce or eliminate the Significant and Unavoidable impacts. Those alternatives that would have impacts identical to, or more severe than, the Proposed Project, or that would not meet most of the project objectives were considered and then dismissed from further consideration. The following alternatives were also considered but rejected from further analysis because they were determined to not meet most of the project objectives or were infeasible.

Alternative Site

Section 15126.6(f)(2)(B) requires that the Lead Agency disclose the reasons for not considering an alternative project site. An alternative to consider an alternative site for the RDSP was dismissed from further consideration. Such an alternative would eliminate the Significant and Unavoidable impact to historic resources by not requiring the demolition of the State Printing Plant and could result in fewer traffic impacts on local roads, State Highways, and the freeway. As noted in the Project Description, the RDSP would reduce the density of the development that is currently allowed for the project area by the Zoning Code. The goal of the Proposed Project is the redevelopment of a specific area of the City. The proposed Specific Plan and the associated design guidelines are tailored to this area, the majority of which is currently developed. An alternative site would not meet the basic purpose of this project.

No Project/No Development Alternative

This alternative assumes that the Proposed Project would not be implemented and there would not be any new development within the RDSP area. The project area is composed of approximately 400 parcels, under the ownership of approximately 200 entities. It is not feasible to consider an alternative that assumes no owners would want to develop their properties.

Alternatives Considered in this EIR

Although any number of alternatives could be designed that could result in the reduction or elimination of project impacts, three are evaluated in this Draft EIR.

- **No Project/ Existing Zoning Alternative**

This alternative assumes that the RDSP area would be developed consistent with the currently allowed land uses, zoning, and development intensities. This alternative must consider the effects of forgoing the project. The purpose of analyzing this alternative is to allow decision-makers to compare the impacts of the Proposed Project to the impacts of not approving the Proposed Project.

- **Existing Street Pattern/Historic Preservation Alternative**

This alternative assumes that there would be a RDSP Specific Plan to guide the development/redevelopment of the area and that no new streets would be developed. As with the Proposed Project, this alternative assumes that the density of development allowed within the RDSP area would be less than allowed by the Zoning Code, due to the proposed Specific Plan and the Design Guidelines.

No Project/ Existing Zoning Alternative

This alternative would result in essentially the same impacts as assumed for the project area in the Master EIR for the General Plan. Although the proposed RDSP would not require a General Plan Amendment, the Specific Plan would contain development guidelines that would result in less intense development than that allowed under the current zoning. Because a variety of land uses and densities could be developed within the RDSP area in accordance with the existing zoning, it is too speculative to determine development assumptions for the area for a quantitative comparison to the proposed project. Therefore, the impacts are examined qualitatively.

This alternative would develop the same footprint as the Proposed Project; therefore, the effects related to the location of development, such as the potential loss of biological and archeological resources, exposure to hazards and hazardous materials, and changes to local hydrology, would be the same.

The impacts to public services (police, fire, and schools) would be similar with this alternative, because both the Proposed Project and the alternative would result in more residents in an area that currently requires more public service facilities. However, with less dense development, the Proposed Project could result on less demand for public services, although new facilities and the attendant environmental impacts would be required.

The impacts on sensitive receptors due to increased traffic noise could be less for the residents on Bannon Street with this alternative. Because this alternative would not extend the gridded street pattern, the traffic on Bannon Street would not be anticipated to increase enough to result in significantly increased noise for the residents. Because this alternative would develop with the existing zoning regulations, a denser development could occur that is anticipated to result in greater traffic on Richards Boulevard, 12th Street, and 16th Street. Therefore, this alternative could result in more noise at the sensitive receptors along these roads than the Proposed Project.

The Existing Zoning Alternative would be anticipated to contribute more wastewater and stormwater flows to the separated and combined system treatment plants due to the increased density of development.

The air emissions generated during construction could be less with the alternative than the proposed project, because there would not be the impetus for redevelopment of the area without the Specific Plan. However, it is anticipated that the operational air impacts would be greater with the alternative, because there could be greater density of development and there would not be the gridded street pattern. The proposed street pattern could result in reduced air emissions because it expands the circulation system, thereby, resulting in more free-flowing traffic. This alternative would not have this proposed street pattern.

The impacts to parks is anticipated to be greater with the alternative than the proposed project because without the Specific Plan a 20-acre park would most likely not be developed, as is required with the development of the RDSP.

There are currently historic resources within the RDSP area and any development of parcels adjacent to these resources or redevelopment of the resources themselves would be required to adhere to all federal, State, and local regulations that protect historic resources.

As previously stated, a variety of land uses, land use distributions, and densities of development would be allowed under the Existing Zoning Alternative. Each of the approximately 400 parcels could be developed or redeveloped in accordance with the Zoning Code. Therefore, the impacts due to traffic cannot be

determined for this analysis; however, because the Zoning Code would allow for more density, it is assumed that the impacts on the local roads and the freeways would be greater with this alternative than the RDSP.

This alternative would not meet any of the objectives established for this project. The approximately 400 individual parcels would develop individually, in accordance with the Zoning Code and the General Plan, without the benefit of a planning document that would guide the overall development toward an established vision.

Implementation of the mitigation measures identified in this DEIR would not be required; however, the developers of the individual parcels would be required to comply with federal and State regulations and the City Code.

This alternative would result in the same Significant and Unavoidable impacts to archeological resources and vibration associated with construction as associated with the Proposed Project. However, the alternative would eliminate the significant impact to a historic resource because demolition of the State Printing Plant would not be required. Because this alternative would develop the RDSP area in accordance with the existing General Plan designations and zoning, the impacts due to increased traffic were previously addressed in the Master EIR for the General Plan.

Existing Street Pattern/Historic Preservation Alternative

This alternative assumes that there would be a RDSP Specific Plan to guide the development/ redevelopment of the area and that no new streets would be developed. As with the Proposed Project, this alternative assumes that the density of development allowed within the RDSP area would be less than allowed by the Zoning Code, due to the proposed Specific Plan and the Design Guidelines. Parcel sizes would remain the same as the current configuration, which is larger in some areas than would occur with the proposed street grid. This could result in different types of development than envisioned by the Proposed Project and could result in less residential development. For this alternative, it is assumed that the amount of office and commercial development would remain the same as the Proposed Project

This alternative would develop the same footprint as the Proposed Project; therefore, the effects related to the location of development, such as the potential loss of biological and archeological resources, exposure to hazards and hazardous materials, and changes to local hydrology, would be the same.

Assuming less residential development, this alternative could result in less impact to public services (police, fire, and schools). However, the need for expanded or new facilities would result from development of either this alternative or the Proposed Project.

The impacts on sensitive receptors due to increased traffic noise could be less for the residents on Bannon Street with this alternative. Because this alternative would not extend the gridded street pattern, the traffic on Bannon Street would not be anticipated to increase enough to result in significantly increased noise for the residents. However, without the gridded street pattern, it is anticipated that more cars would travel on Richards Boulevard than with the Proposed Project, thereby resulting in greater traffic noise to the existing residential development at Dos Rios Street.

The impacts to public utilities are anticipated to be slightly less than with the Proposed Project because less residential development is assumed.

It is anticipated that the operational air impacts would be greater with the alternative because there would not be the gridded street pattern to expand the circulation system and provide drivers with more choices thereby, resulting in more free-flowing traffic.

Assuming less residential development with this alternative, there could be less park development required than with the Proposed Project; however, both projects would be required to provide the amount of park facilities required by the State and local regulations.

There are currently historic resources within the RDSP area and any development of parcels adjacent to these resources or redevelopment of the resources themselves would be required to adhere to all federal, State, and local regulations that protect historic resources.

The proposed RDSP would create a gridded street pattern within the project area. In order to create the new rights of way the State Printing Plant would be demolished. This structure is eligible for listing as a historic resource. The demolition of this building is considered a Significant and Unavoidable impact of the Proposed Project. This alternative would not result in this impact, and would not result in significant impacts to historic resources.

Because this alternative assumes that the amount of commercial and office development would be the same as the Proposed Project, with less residential anticipated, the impacts due to increased traffic would essentially be the same as the Proposed Project.

This alternative would still result in significant impacts due to increased traffic noise at existing sensitive receptors, impacts to archeological resources, and vibration during construction.

This alternative would meet some of the objectives established for this project; however, the objectives of making the River District area an integral part of the circulation system with the areas to the east and south would not be met.

Environmentally Superior Alternative

CEQA requires that an EIR identify the environmentally superior alternative (Section 15126(e) of the CEQA Guidelines). If the environmentally superior alternative is the “no project” alternative, the identification of an environmentally superior alternative among the other alternatives is required.

All of the project alternatives and the Proposed Project could result in the same impacts due to air emissions during construction, impacts to adjoining structures due to vibration, and cultural resources during construction.

The remaining potential impacts resulting from demolition of historic resources, increased noise to existing sensitive receptors, and increased traffic could be avoided by the No Project/Existing Zoning Alternative. This alternative would not require demolition of the State Printing Plant and would not create new roads

The environmentally superior alternative would be the No Project/Existing Zoning Alternative because it would eliminate all of the Significant and Unavoidable impacts to historic resources and traffic.

The Existing Street Pattern/Historic Preservation Alternative is considered to be the preferred alternative in that it would eliminate the Significant and Unavoidable impact associated with a historic resource. Although this alternative would result in fewer significant impacts than the Proposed Project, it would not meet the Project Objectives of fully integrating this area into the Central City area. The extension of the north/south gridded street pattern into the River District area is an important component of that objective. The creation of an east/west gridded street pattern in the area helps to integrate the area into the fabric of Sacramento by allowing more connections to the neighborhood to the east and providing the continuation of the block

pattern. Without the creation of smaller blocks associated with the gridded street pattern, it is more difficult to establish the “sense of place” that is an objective of the River District Specific Plan.

CHAPTER 8: REFERENCES

Chapter 8	References
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- AECOM, Air Quality Assessment for the River District Specific Plan Sacramento, CA, April 14, 2010.
- AECOM, Biological Resources Assessment for the River District Specific Plan, Sacramento, CA, December 1, 2009.
- AECOM, Environmental Noise Assessment for the River District Specific Plan Sacramento, CA, January 29, 2010.
- California Air Resources Board, Forecasted Emissions by Summary Category 2006 Almanac, page updated April 5, 2006.
- California Air Resources Board, <http://www.arb.ca.gov/adam> , accessed April 2010.
- California Air Resources Board, Maps of Estimated Cancer Risk From Air Toxics <www.arb.ca.gov/toxics/cti/hlthrisk/hlthrisk.htm>.
- California Highway Patrol, Negative Declaration, 2009,
<http://www.ceqanet.ca.gov/DocDescription.asp?DocPK=635491> (accessed January 25, 2010).
- <http://www.ceqanet.ca.gov/DocDescription.asp?DocPK=635491> (accessed January 25, 2010).
- City of Sacramento, 2030 General Plan Master Environmental Impact Report, certified March 2009.
- City of Sacramento. 2030 General Plan Technical Background Report. June 2005.
http://www.sacgp.org/documents/Chapter6_EnvironmentalResources.pdf Accessed on August 24, 2009.
- City of Sacramento, Township 9 Draft Environmental Impact Report, February 2007.
- City of Sacramento, *Railyards Specific Plan Draft Environmental Impact Report*, August 2007, Page 6.6-23.
- City of Sacramento, Richards Blvd Redevelopment Plan Amendment, “Cultural and Historic Resources, Chapter 5, January 2008.
- City of Sacramento, *River District Specific Plan*, June 2010.
- David Brown, P.E., Principal Distribution Systems Engineer, SMUD, written Communication, February 2, 2010.
- Department of Toxic Substances Control, Envirostar, Hazardous Waste and Substances Site List.
- Department of Toxic Substances Control, Envirostar, Permitted Facilities.
- ERM-West, Inc., Report of Waste Discharge Lagoon Study Area, Northwest Corner, Sacramento Rail Yard, December 2004.

FEMA, Flood Insurance Rate Maps, City of Sacramento, California, Panels 180 and 160 of 310, revised December 8, 2008, accessed online at <http://msc.fema.gov/webapp/wcs/stores/servlet> on October 27, 2009.

Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2000.

Interstate 5/Richards Boulevard Access Improvements (Fehr & Peers, 2009).

ICF Jones & Stokes, Initial Study and Mitigated Negative Declaration, Access Improvements from Railyards to Richards Boulevard and Interstate 5 Project, August 2009.

John Loane, Integrated Waste Management Specialist, California Integrated Waste Management Board, personal communication.

Sacramento Metropolitan Air Quality Management District (SMAQMD), Guide To Air Quality Assessment in Sacramento County. July 2004.

Sacramento Regional Transit webpage: <http://www.sacrt.com/dna/mos-1/default.html>, accessed November 23, 2009.

Sacramento Regional Transit. DNA Light Rail Transit MOS-1 Project Draft EIR, February 2009. C, http://www.sacrt.com/dna/news/draft_mos-1_eir.html (accessed 2-2-10).

SMAQMD 2003 Triennial Report (April 2005).

SMAQMD Sacramento Regional 8-hour Ozone 2011 Reasonable Further Progress Plan Draft Report (February 2008).

SMAQMD Sacramento Regional Nonattainment Area 8-Hour Ozone Rate of Progress Plan Final Report (February 2006).

State Water Resources Control Board, GeoTracker database, http://geotracker.waterboards.ca.gov/profile_report.asp, accessed June 1, 2010.

US EPA, CERCLIS, Search Superfund Site Information, <http://cfpub.epa.gov/supercpad/cursites/srchrslist.cfm>.

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Chapter 9

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