



Aspen 1-New Brighton

Project# P09-038/M09-032

State Clearinghouse # 2010072058

Draft Environmental Impact Report Volume I

PREPARED FOR THE
CITY OF SACRAMENTO

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DRAFT ENVIRONMENTAL IMPACT REPORT
Aspen 1-New Brighton (P09-038/M09-032)

State Clearinghouse # 2010072058

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1. INTRODUCTION AND SCOPE OF THE EIR

1

INTRODUCTION AND SCOPE OF THE EIR

1.0 INTRODUCTION

The Aspen 1-New Brighton Draft Environmental Impact Report (EIR) is prepared in accordance with the California Environmental Quality Act of 1970 (CEQA), Pub. Res. Code §§ 21000-21178, as amended (CEQA) and the Guidelines for Implementation of the California Environmental Quality Act, Cal. Code Regs. Title 14, §§ 15000-15387 (CEQA Guidelines). The City of Sacramento is the lead agency for the environmental review of the Aspen 1-New Brighton project and has the principal responsibility for approving the project. As required by Section 15121 of the California Environmental Quality Act Guidelines (CEQA Guidelines), this Draft EIR assesses the potential environmental impacts resulting from approval, construction, and operation of the proposed project, and identifies feasible means of minimizing potential adverse environmental impacts.

1.1 PROJECT BACKGROUND

The proposed project site is part of what is commonly referred to as “Aspen 1,” which is owned and operated by Teichert Land Company. As discussed above, the proposed project site is a former mine site which was utilized for sand and gravel extraction starting in approximately 1961 through the late 1990s. Since mining of the site was completed, the site has primarily been utilized for a variety of supporting uses for the Teichert Perkins plant.

Prior to the preparation of this application, the City of Sacramento petitioned the Sacramento Local Agency Formation Commission (LAFCo) for a Sphere of Influence (SOI) Amendment for approximately 34 gross acres of land within the project site to be included within the City of Sacramento SOI. This request was approved by LAFCo on April 1, 2009 (Resolution No. LAFCo 2009-02-0401-05-08 [See Appendix D]) and the affected property is included within this project to facilitate a comprehensive master planning process. The LAFCo-approved SOI also included Conditions of Approval.

1.2 PROJECT DESCRIPTION

The proposed project includes a General Plan Amendment to redesignate land uses, a General Plan Amendment to address policy language related to urban farms, a rezone and prezone of the project site, a Planned Unit Development, establishment of a Special Planning District, Inclusionary Housing Plan, Reorganization/Annexation, Bikeway Master Plan Amendment, Tax Exchange Agreement, Development Agreement, alternative street standards, and a Large Lot Tentative Map and a Tentative Subdivision Map that would establish parcels for residential, commercial, school, park, and urban farm uses. The project would include 133.5 acres of land designated Single-Family Residential located in the northwest, center, and southeast portions of the project site (including 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential) and 43.1 acres of land designated Multi-Family Residential/Mixed Use located in the central and southern portions of the project site. The project would include the following additional uses: 13.1 acres of land designated

Shopping Center located in the northeast portion of the site; 14.4 acres of land designated Parks/Open Space in three separate areas throughout the project site; and 28.2 acres of land designated Urban Farm in the southwest portion of the project site. In addition, the project would include the construction of improvements to existing roadways, water supply systems, wastewater systems, and storm drain systems, in order to accommodate buildout of the project. The proposed project also requires approval by the Sacramento Local Agency Formation Commission (LAFCo) as a Responsible Agency for reorganization. Reorganization would consist of annexation of the site to the City of Sacramento and detachment of the site from the Sacramento Metropolitan Fire Department, and the Cordova Parks and Recreation District. For more details regarding the proposed project, please see Chapter 3, Project Description, of this Draft EIR.

1.3 PURPOSE OF EIR

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues.

The EIR is an informational document that informs decision-makers and the general public of the potential significant environmental effects of a proposed project. An EIR must identify possible means to minimize the significant effects and describe a reasonable range of feasible alternatives to the project. The lead agency, which is the City of Sacramento for this project, is required to consider the information in the EIR along with any other available information in deciding whether to approve the application. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth inducing impacts, and cumulative impacts.

1.4 TYPE OF DOCUMENT

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a project level EIR pursuant to CEQA guidelines Section 15161. This type of analysis examines the environmental impacts of a specific development project. A project level EIR focuses primarily on the changes in the environment that would result from the development of the project, and examines all phases of the project including planning, construction, and operation.

1.5 USE OF PREVIOUSLY PREPARED ENVIRONMENTAL DOCUMENTATION

The Aspen 1-New Brighton Draft EIR relies in part on data, environmental evaluations, mitigation measures and other components of EIRs and plans prepared by the City for areas within the project vicinity. City of Sacramento documents are listed here and were used as source documents during preparation of this Draft EIR. All documents are available for public review and inspection at the City of Sacramento Community Development Department, Environmental Planning Services, 300 Richards Boulevard, Sacramento, California 95811.

1. City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
2. City of Sacramento, *Sacramento 2030 General Plan Draft Master Environmental Impact Report* (SCH # 2007072024), March 2009.

3. City of Sacramento, *City of Sacramento Zoning Code*, amended through May 2011.
4. Sacramento Metropolitan Air Quality Management District, *Guide to Air Quality Assessment in Sacramento County*, July 2004.

The Aspen 1-New Brighton Draft EIR also relies on the information contained in the technical reports prepared by the subconsultants for the project. Refer to Chapter 9, References, of this Draft EIR for a complete listing of all technical reports.

1.6 EIR PROCESS

The EIR process begins with the decision by the lead agency to prepare an EIR, either during a preliminary review of a project or at the conclusion of an initial study. Once the decision is made to prepare an EIR, the lead agency sends a Notice of Preparation (NOP) to appropriate government agencies, and when required, to the State Clearinghouse (SCH) in the Office of Planning and Research (OPR), which ensures that responsible State agencies reply within the required time. The SCH assigns an identification number to the project, which then becomes the identification number for all subsequent environmental documents on the project. Applicable agencies have 30 days to respond to the NOP, indicating, at a minimum, reasonable alternatives and mitigation measures they wish to have explored in the Draft EIR and whether the agency will be a responsible agency or a trustee agency for the project.

As soon as the Draft EIR is completed, a notice of completion is filed with the OPR and a public notice is published to inform interested parties that a Draft EIR is available for agency and/or public review and to provide information regarding location of drafts and any public meetings or hearings that are scheduled. The Draft EIR is circulated for a specified period, typically 45 days, during which time reviewers may make comments. The lead agency must evaluate and respond to comments in writing, describing the disposition of any significant environmental issues raised and explaining in detail the reasons for not accepting any specific comments concerning major environmental issues. Should comments received result in the addition of significant new information to an EIR, after public notice is given, the revised EIR or affected chapters must be recirculated for another public review period with related comments and responses.

Once the lead agency is satisfied that the EIR has adequately addressed the pertinent issues in compliance with CEQA, a Final EIR will be prepared comprised of the Draft EIR, comments, responses to comments, and any errata and/or changes. The Final EIR is a public document, and is available for review by the public or commenting agencies. Before approving a project, the lead agency must certify that the Final EIR has been completed in compliance with CEQA; has been presented to the decision-making body of the lead agency; has been reviewed and considered by that body, and that the Final EIR reflects the lead agency's independent judgment and analysis.

An NOP for the Aspen 1-New Brighton EIR was previously released for a 30-day review on July 26, 2010 (See Appendix A for a copy of the NOP). In addition, an NOP scoping meeting was held on August 12, 2010, following the release of the NOP. Comments provided by the public and public agencies in response to the NOP were received by the City of Sacramento and are provided in Appendix B. An Initial Study was also prepared to focus the scope of the Aspen 1-New Brighton Draft EIR (See Appendix C).

The Draft EIR will be circulated for a 45-day public review period. Comments received during the comment period will be addressed in the Aspen 1-New Brighton Final EIR. The City of

Sacramento Planning Commission and/or City Council, in accordance with CEQA, will review the Draft and Final EIRs prior to certification.

Before approving a project for which a certified Final EIR has identified significant environmental effects, the lead agency must make one or more specific written findings for each of the identified significant impacts. These findings are limited to the following:

- Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- Such changes or alterations are within the responsibility and jurisdiction of other public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such another agency.
- Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR (CEQA Guidelines, Section 15091 [a]).

If significant environmental effects remain, even with the adoption of all feasible mitigation measures or alternatives, the agency must adopt a “statement of overriding considerations” before the agency can proceed with the project. The statement of overriding consideration must be supported by substantial evidence in the record (CEQA Guidelines, Sections 15092, 15093).

These overriding considerations include the economic, legal, social, technological, or other benefits of the proposed project. The lead agency must balance these potential benefits against the project’s unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the lead agency may consider the adverse environmental impacts to be “acceptable”(CEQA Guidelines, Section 15093 [a]). These benefits should be set forth in the statement of overriding considerations, and may be based on the Final EIR and/or other information in the record of proceedings (CEQA Guidelines, Section 15093 [b]).

1.7 SCOPE OF THE DRAFT EIR

Pursuant to the State CEQA Guidelines, the scope of this Draft EIR includes specific issues and concerns identified as potentially significant. The Initial Study prepared for the proposed project concluded that potential impacts related to several environmental issues would be considered less than significant. The less than significant impacts are summarized in Chapter 5.0. Those items identified in the Initial Study as potentially significant are addressed in this Draft EIR.

The City of Sacramento determined that the preparation of an EIR was appropriate due to potentially significant environmental impacts that could be caused by implementation of the proposed project. This Draft EIR evaluates the existing environmental resources in the vicinity of the project site, analyzes potential impacts on those resources resulting from the proposed project, and identifies mitigation measures that could avoid or reduce the magnitude of those impacts. Resources identified for study in this Draft EIR include:

- Air Quality and Climate Change;

- Biological Resources;
- Cultural Resources;
- Geology, Soils, and Mineral Resources;
- Hazards and Hazardous Materials;
- Hydrology, Water Quality, and Drainage;
- Noise and Vibration;
- Parks and Recreation;
- Public Services;
- Transportation and Circulation;
- Urban Design and Visual Resources;
- Utilities, Service Systems, and Energy; and
- Reorganization.

The evaluation of effects is presented on a resource-by-resource basis in Chapters 5.1 through 5.12, and 6. Each sub-chapter is divided into four sections: Introduction, Existing Environmental Setting, Regulatory Background, and Impacts and Mitigation Measures.

Impacts that are determined to be significant in Chapters 5.1 through 5.12 for which feasible mitigation measures are not available to reduce those impacts to a less than significant level are identified as *significant and unavoidable*. Chapter 7 in the Draft EIR presents a discussion and comprehensive list of all significant and unavoidable impacts presented in Chapter 5.

Chapter 4, Land Use, Population, and Housing, includes a discussion of the land use impacts that may occur due to implementation of the proposed project, as well as impacts related to the project's predicted population increase. The land use discussion addresses the consistency of the proposed project with adopted plans and the compatibility with adjacent land uses. Chapter 6, Reorganization, has been prepared in order to allow the Sacramento Local Agency Formation Commission (LAFCo) to utilize this EIR for their review of the requested annexation. The Reorganization chapter will include identification of impacts based upon the *Sacramento LAFCo Policy, Standards and Procedures Manual*. The chapter will include environmental justice implications (i.e., the extent to which the proposal will promote environmental justice – the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services), consistency with adopted regional plans, such as the SACOG Blueprint and MTP, and consistency with the Sphere of Influence Amendment special conditions.

It should be noted that the City has determined that the project was an anticipated future project in the *Sacramento 2030 General Plan Draft Master EIR*, and that the analysis of cumulative effects, growth-inducing effects and irreversible effects set forth in the *Sacramento 2030 General Plan Draft Master EIR* is adequate for the project.

1.8 LEAD AGENCY, PROJECT SPONSOR, AND CONTACT PERSONS

The City of Sacramento is the lead agency for preparation of the Aspen 1-New Brighton project EIR. Sections 15050 and 15367 of the State CEQA Guidelines define the lead agency as the public agency, which has the principal responsibility for carrying out or approving a project.

The environmental consultants to the City are: Raney Planning and Management, Inc., Rimpo and Associates, Inc. for the air quality and climate change analysis, Bollard Acoustical

Consultants for the noise analysis, Airola Environmental Consulting for the biological resources analysis, SWCA Environmental Consultants for the cultural resources analysis, Wallace Kuhl & Associates, Inc. for the geotechnical analysis and DKS Associates for the transportation and circulation analysis. Preparers and contributors to this report are listed in Chapter 10 of this EIR. The key City of Sacramento contact person related to the Draft EIR is as follows:

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City of Sacramento, Community Development Department
Environmental Planning Services
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Sacramento, CA 95811
Phone: (916) 808-2762
Fax: (916) 808-8370
dallen@cityofsacramento.org

1.9 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City of Sacramento received 12 comment letters on the NOP, which was released on July 26, 2010, for the Aspen 1-New Brighton EIR. A copy of each letter is provided in Appendix B of this EIR. The letters were authored by representatives of State and local agencies, as well as the project area residents identified below. The following is a list of the persons and agencies who commented on the NOP:

- Begley, Alyssa – California Department of Transportation
- Darrow, Matthew – Sacramento County Department of Transportation
- Deeble, Sarena – Sacramento Regional County Sanitation District
- Gillespie, Stacy E. – Stoel Rives LLP, Attorneys at Law (for Nancy C. Cleavinger)
- Hurley, Joseph J. – Sacramento Metropolitan Air Quality Management District
- Kim, Yujean – Sacramento Municipal Utility District
- Lang, Jordan – Sacramento Area Bicycle Advocates
- Lockhart, Don – Sacramento LAFCo
- Maldonado, Robert and Monica – Residents
- Oetzel, Mary Ellen – Sacramento County Environmental Management Department
- Radulescu, Dan - Central Valley Regional Water Quality Control Board
- Stewart, Mike – Sacramento Metropolitan Fire District

1.10 SUMMARY OF COMMENTS RECEIVED ON THE NOP

The following list is a summary of concerns taken from comments received on the NOP and comments made at the NOP scoping meeting. All of the environmental issues raised by the commenters are included in the summary below and are addressed in the Draft EIR where appropriate. However, the comments are not re-stated verbatim in the below summary, and comments that appear more than once in similar forms have been condensed into a single entry.

<p><u>Project Description</u> (See Chapter 3)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • The role and sequence of LAFCo in the decision-making process, and LAFCo’s role as a responsible agency. • All required LAFCo actions, including annexation of a portion of the project site to the City and detachment from the Sacramento Metropolitan Fire District and the Cordova Recreation and Park District. • Modification of the service boundaries of Cal-Am Water also should be set forth, including the role of the Public Utilities Commission (PUC), and the relationship between the PUC, LAFCo, and the City.
<p><u>Land Use, Population, and Housing</u> (See Chapter 4)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Presence and potential loss of affordable housing within the project area and, if any, what affect the loss would have on a countywide basis. • Compatibility with surrounding land uses. • Establishment of setbacks or other adequate buffer zones to reduce or eliminate impacts of existing noise, air quality, geology, soils, and water runoff potentially associated with industrial activities to the north, south, and west of the project site.
<p><u>Air Quality and Climate Change</u> (See Chapter 5.1)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Construction and operational impacts to air quality. • Consistency with adopted air quality attainment plans. • Greenhouse gas emissions and climate change. • Consistency with local, regional, and statewide plans to reduce greenhouse gas emissions. • Compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD) Rules and Regulations. • Inclusion of SMAQMD mitigation measures. • Development of an operational air quality mitigation plan (AQMP). • Increased particulate matter (PM) emissions.
<p><u>Biological Resources</u> (See Chapter 5.2)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Impacts to waters of the United States or waters of the State.
<p><u>Hydrology, Water Quality and Drainage</u> (See Chapter 5.6)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Changes of imperviousness in regional watersheds. • Increased stormwater runoff. • Groundwater quality. • Hydromodification. • Low impact design (LID) strategies.

<p><u>Noise and Vibration</u> (See Chapter 5.7)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Noise impacts of the proposed project's uses and traffic.
<p><u>Parks and Recreation</u> (See Chapter 5.8)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Loss of open space resources.
<p><u>Public Services</u> (See Chapter 5.9)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Environmental impacts related to on- or off-site construction of any utilities facilities needed to adequately serve the project. • Adequate service capability and capacity to serve the proposed project's public services needs.
<p><u>Transportation and Circulation</u> (See Chapter 5.10)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Increased traffic on roadways surrounding the project site. • Impacts to State Route (SR) 16 and U.S. Highway 50. • Impacts to the following roadways/ramps/intersections: SR 16/Folsom Boulevard between Power Inn Road and the SR 16/Folsom Boulevard split; SR 16 between the Folsom Boulevard split and Watt Avenue; freeway weave sections along Highway 50 between Bradshaw Road and Watt Avenue; freeway weave sections along Highway 50 between 65th Street and Howe Avenue/Power Inn Road; all ramps at Howe Avenue/Power Inn Road and Watt Avenue; the eastbound Highway 50 off-ramp slip; the westbound Highway 50 slip; loop on-ramps at 65th Street; SR 16/Folsom Boulevard and Power Inn Road; Folsom Boulevard and Notre Dame Drive; Folsom Boulevard and Florin-Perkins Road; Kiefer Boulevard and Florin-Perkins Road; Florin Perkins Road and SR 16; South Watt Avenue and SR 16; Fruitridge Road and South Watt Avenue; and the planned intersection at 14th Avenue and SR 16. • Compliance of project streets with the City of Sacramento's "Pedestrian Friendly Street Standards" Policy. • Compliance of the project's Class I bike trails with Caltrans Highway Design Manual Chapter 1000 standards. • Compliance with the City's General Plan Goals M 1.3, M 4.2, and M 5.1 on connectivity, Complete Streets, and bikeways. • Adequacy of bicycle parking facilities at the proposed Mixed Use and Shopping Center areas. • Adequacy of pedestrian and bicyclist safety features at the external intersections connecting to Jackson Highway and South Watt Avenue. • Assumption of the following projects for the analysis of cumulative traffic impacts: New Brighton (Sacramento County), Newbridge, the Mather Specific Plan, the Watt

	<p>Avenue Corridor Plan, Cordova Hills, the North Vineyard Station Specific Plan, the Florin Vineyard Community Plan, and the Vineyard Specific Plan.</p> <ul style="list-style-type: none"> • Compatibility with Jackson Road Planning Document and planned interchange at South Watt Avenue and Jackson Road. • Sacramento County’s plans for a high-level transit service, such as BRT, on South Watt Avenue and Jackson Road east of South Watt Avenue. • Traffic and circulation associated with existing operations, including the Florin Perkins Disposal facility. • Provision of bicycle and pedestrian connectivity between the project and other projects in the area. • Potential use of roundabouts at certain intersections.
<p><u>Utilities, Service Systems, and Energy</u> (See Chapter 5.12)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Environmental impacts related to on- or off-site construction of any utilities facilities needed to adequately serve the project. • Adequate service capability and capacity to serve the proposed project’s utilities needs. • Provision of services by the City to the project area without adversely affecting existing service levels elsewhere in the City’s service areas (including service delivery impacts to the Cal American Water Company). • Increase in electrical demand in the project area and the potential need to upgrade SMUD facilities. • Connection of sewer service for the project and project compliance with the Sacramento Regional County Sanitation District (SRCSD) Interceptor Master Plan 2000.
<p><u>Reorganization</u> (See Chapter 6)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Areas of concern to Sacramento LAFCo (annexation, detachment, etc.). • Consistency with the Sacramento Regional Blueprint. • Impacts related to environmental justice (fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services).
<p><u>Project Alternatives</u> (See Chapter 8)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Alternative design for the intersection of Rock Creek Parkway and Aspen Promenade. • Alternative location for proposed school site in order to make the school more centrally-located.
<p><u>Initial Study</u> (See Appendix C)</p>	<p>Concerns related to the following issues:</p> <ul style="list-style-type: none"> • Impacts to existing agricultural uses and activities within and adjacent to the project area, including the presence of

	<p>any lands protected by Williamson Act contracts or within Farmland Security Zones.</p> <ul style="list-style-type: none">• Impacts to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.
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1.11 ORGANIZATION OF THE DRAFT EIR

The Draft EIR is organized into the following chapters:

Chapter 1 – Introduction and Scope of the EIR

Provides an introduction and overview describing the intended use of the Draft EIR and the review and certification process, and the Notice of Preparation Comment Summary.

Chapter 2 - Executive Summary

Summarizes the elements of the project and the environmental impacts that could result from implementation of the proposed project and provides a table which lists impacts, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation.

Chapter 3 - Project Description

Provides a detailed description of the proposed project, including the project's location, background information, major objectives, and technical characteristics.

Chapter 4 - Land Use, Population, and Housing

Describes the existing land use setting for the project, including the proposed project's relationship to adopted plans and policies.

Chapter 5 – Environmental Setting, Impacts, and Mitigation Measures

Provides an analysis to the potential impacts of buildout of the proposed project on a range of environmental issues.

Chapter 6 – Reorganization

Provides a discussion regarding the potential impacts resulting from reorganization of the proposed project site. Reorganization of the site would consist of annexation of the unincorporated portion of the project site to the City of Sacramento, and detachment from the Sacramento Metropolitan Fire District and the Cordova Recreation and Park District.

Chapter 7 - CEQA Considerations

Provides discussions required by CEQA regarding impacts that would result from the proposed project, including a summary of cumulative impacts, potential growth-inducing impacts, secondary impacts, and significant irreversible changes to the environment.

Chapter 8 - Project Alternatives

Describes the alternatives to the proposed project and identifies the Environmentally Superior Alternative.

Chapter 9 - References

Provides bibliographic information for all references and resources cited.

Chapter 10 - Authors

Lists report authors who provided technical assistance in the preparation and review of the Draft EIR.

Appendices

Include the NOP, comments made on the NOP, the Initial Study and Environmental Checklist, the air quality and climate change analysis, the biological resources analysis, the cultural resources analysis, the geotechnical analysis, the noise analysis, the traffic analysis, and any additional technical information.

2. EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

2.0 INTRODUCTION

The Executive Summary chapter of the EIR provides an overview of the Aspen 1-New Brighton project (proposed project) and the conclusions of the environmental analysis. Chapter 3 provides a detailed description of the project, Chapter 4 analyzes the projects consistency with applicable land use regulations, and Chapters 5.1 through 5.12 provide the environmental analysis. Chapter 6 describes impacts related to reorganization (annexation and detachment of the project site from special districts). Analysis includes impacts of the alternatives to the proposed project, which are described in Chapter 8, Project Alternatives.

2.1 PROJECT DESCRIPTION

The proposed project site encompasses approximately 232 acres and is located at the southwest corner of Jackson Highway and South Watt Avenue in the City of Sacramento. A small portion of the project site (approximately 34 acres) is located outside the city limits, within unincorporated Sacramento County. The proposed project site is part of what is commonly referred to as “Aspen 1,” which is owned and operated by Teichert Land Company. The site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins plant. Mining on the project site was completed in the late 1990s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves from other aggregate mining sites to the Teichert Perkins plant, and an electrical transmission line that transects the site in a northwesterly direction.

Uses surrounding the project site include the Teichert Perkins plant to the north (an active sand and gravel processing and sales facility), the Teichert Aspen 2 property to the east (a former mine site similar to the project site), the L and D Landfill to the south (a Class III facility limited to commercial waste and recycling) as well as Fruitridge Road, and the former Florin Perkins Landfill to the west and Florin Perkins Road.

Components of the proposed project include the proposed land use areas and infrastructure, the required entitlements, Sacramento Local Agency Formation Commission (LAFCo) reorganization, and an Inclusionary Housing Plan. Project components are further discussed below.

The proposed project includes both a Large Lot Tentative Map and Tentative Subdivision Map. The Large Lot Tentative Map is proposed in order to subdivide the approximately 232-acre site into 24 master parcels for commercial and residential development consistent with the Planned Unit Development (PUD). The Tentative Subdivision Map would establish parcels for residential, commercial, school, park, and urban farm uses. The project would include 133.5 acres of land designated Single-Family Residential located in the northwest, center, and southeast portions of the project site (including 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential) and 43.1 acres of land designated Multi-Family Residential/Mixed Use located in the central and

southern portions of the project site. The project would include the following additional uses: 13.1 acres of land designated Shopping Center located in the northeast portion of the site; 14.4 acres of land designated Parks/Open Space in three separate areas throughout the project site; and 28.2 acres of land designated Urban Farm in the southwest portion of the project site. Additionally, the applicant is requesting modified street standards.

A General Plan Amendment is required to designate approximately 29.5 acres in the eastern portion of the site, located outside of the City of Sacramento as Traditional Neighborhood Medium (8-21 dwelling units per acre [du/ac]) and Suburban Center (15-36 du/ac with a floor-to-area ratio [FAR] of 0.25-2.0). The remaining approximately 203 acres of the site would retain the designations of Traditional Neighborhood Medium (8-21 du/ac) and Suburban Center (15-36 du/ac with a FAR of 0.25-2.0). In addition, a General Plan Text Amendment is also proposed that would adjust the policy language in the *Sacramento 2030 General Plan* to further support the project's proposed Urban Farm use.

A rezone is required to redesignate the site from Heavy Industrial (M-2S-SWR and M-2S-R-SWR) to Single-Family Residential (R-1A SPD [PUD]), Multi-Family Residential/Mixed-Use (RMX SPD [PUD]), Shopping Center (SC SPD [PUD]), Parks/Open Space (A-OS SPD [PUD]), and Agriculture (A SPD [PUD]). The prezone of the 29.5 acres located outside of the City of Sacramento, which is currently zoned Heavy Industrial (M-2[SM]) and Industrial Reserve Surface Mining Combining Zone (IR-SM), is required in order to establish City zoning for the project site, which would be effective upon annexation approval by LAFCo.

The project would include the Aspen 1-New Brighton Planned Unit Development (PUD) consisting of a Schematic Plan and Design Guidelines, which are subject to approval by the City Council. Approval of a PUD requires subsequent approvals of either a Special Permit or Plan Review for development within the project boundaries. In addition, the Aspen 1-New Brighton Special Planning District (SPD) would be established. The SPD establishes procedures to implement the policies, land uses, development standards, and design guidelines of the project and is the primary policy and regulatory document used to guide development of properties within the project site.

The applicant's request for an amendment to the City of Sacramento Sphere of Influence for approximately 34 gross acres of land to be included within the SOI was approved by LAFCo on April 1, 2009. Approval from LAFCo of reorganization of the project site would be required. Reorganization would consist of detachment of the site from the Sacramento Metropolitan Fire Department, the California American Water Company, and the Cordova Recreation and Park District, as well as annexation of 29.5 acres of the project site to the City of Sacramento. As part of the annexation, a tax exchange agreement between the City of Sacramento and Sacramento County will be required.

In order to comply with the City's affordable housing ordinance, an Inclusionary Housing Plan is required for the project. The Inclusionary Housing Plan will be submitted by the project applicant after the completion of the Draft EIR. In addition, an amendment to the 2010 City/County Bikeway Master Plan is required in order to include the Aspen 1-New Brighton Trails Plan in the Master Plan document and maps. Finally, a Development Agreement between the applicant and the City of Sacramento will be reviewed in conjunction with the proposed project.

2.2 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or visual significance. For these areas, this Draft EIR discusses the impacts and mitigation measures that could be implemented by the City of Sacramento to reduce potential adverse impacts to a level that is considered less-than-significant. The impacts and mitigation measures are also summarized in Table 2-1 at the end of this chapter. An impact that remains significant after mitigation is considered an unavoidable adverse impact of the proposed project. The mitigation measures presented in the Draft EIR will form the basis of the Mitigation Monitoring Program.

Land Use, Population, and Housing

The Land Use, Population, and Housing chapter of the EIR is intended to provide the reader with information regarding current General Plan land use and zoning designations; as well as land use policies in the City of Sacramento and in the vicinity of the proposed project, and compares the proposed project population increase to the planned population for the site in the City's General Plan to determine if the proposed project would induce substantial growth that is inconsistent with the approved land use plan for the area. Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines states, "[...] the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans."

The proposed Aspen 1-New Brighton project is analyzed in this chapter for consistencies and/or inconsistencies with the *Sacramento 2030 General Plan Master EIR*, the *Sacramento 2030 General Plan*, and the City's Comprehensive Zoning Ordinance. The Land Use, Population, and Housing chapter concludes that the proposed project would be consistent with the proposed 2030 General Plan land use designations, consistent with the City's Zoning Ordinance, and compatible with the existing adjacent land uses. In addition, the population generated by the project would be within the maximum and minimum population anticipated in the Housing Element of the *Sacramento 2030 General Plan*. LAFCo related impacts are discussed in Chapter 6, Reorganization, of this Draft EIR.

Air Quality and Climate Change

The Air Quality and Climate Change chapter of the EIR describes the impacts of the proposed project on local and regional air quality. 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 guidelines, the Air Quality and Climate Change chapter describes existing air quality, construction-related air quality impacts resulting from grading and equipment emissions, direct and indirect emissions associated with the proposed project, the impacts of these emissions on both local and regional scales, and mitigation measures to reduce or eliminate any identified significant impacts. In addition, the chapter analyzes the project's greenhouse gas (GHG) emissions.

The proposed project would result in less than significant impacts related to the following: an increase in health risks from naturally occurring asbestos; an increase in CO concentrations; health risks from exposure to diesel particulate matter; cumulative impacts related to an

increase in CO concentrations; cumulative impacts related to an increase in CO₂e emissions; and cumulative impacts related to construction and operation of the proposed project conflicting with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. With implementation of mitigation measures, the following potentially significant impacts would be reduced to less than significant levels: short-term increases in construction-generated NO_x emissions; and increases in health risks from diesel exhaust during construction. Even with implementation of mitigation measures, the following impacts would remain significant and unavoidable: increases in PM₁₀ and PM_{2.5} concentrations during construction; increases in ROG and NO_x emissions during operation; and cumulative impacts related to an increase in ROG and NO_x emissions during operation. In addition, impacts related to the creation of objectionable odors would remain significant and unavoidable because feasible mitigation does not exist.

Biological Resources

The Biological Resources chapter of the EIR evaluates the biological resources that occur in the Aspen 1-New Brighton project (proposed project) area. Existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities are discussed.

The proposed project would have less-than-significant impacts with the implementation of mitigation measures regarding impacts to the following: waters of the State; federally listed vernal pool crustacean habitat; Swainson's hawk foraging habitat and nests; burrowing owl habitat; tricolored blackbird foraging habitat; active raptor nest trees; heritage and/or protected trees; and cumulative loss of biological resources in the City of Sacramento and the effects of ongoing urbanization in the region. Impacts related to northwestern pond turtle habitat, valley elderberry longhorn beetle habitat, and special-status plant species would be considered less than significant.

Cultural Resources

The Cultural Resources chapter of the EIR addresses known historic and prehistoric resources in the proposed project vicinity and the potential for unknown resources to exist. The analysis summarizes the existing setting and briefly describes the potential effects to historical, archaeological, and paleontological resources. The analysis will both identify the thresholds of significance of possible impacts associated with the project, and develop mitigation measures that would be necessary to reduce impacts to a less than significant level.

The proposed project would result in potentially significant impacts related to a change in the significance of historical or archaeological resources or the direct or indirect destruction of a unique paleontological resource, site, or unique geologic feature and the disturbance or destruction of previously unknown archaeological resources in combination with other development in the Sacramento area. However, with implementation of mitigation measures, the impacts would be reduced to less than significant levels.

Geology, Soils, and Mineral Resources

The Geology, Soils, and Mineral Resources chapter of the EIR analyzes the impacts of the proposed Aspen 1-New Brighton project related to soils and geology. The proposed project would have less than significant impacts in regards to the following: development in areas that could be affected by seismic hazards; loss of structural support due to liquefaction or lateral

spreading; damage to foundations, pavements, and other structures from expansive soils; loss of availability of a known State, regional, and/or locally valuable mineral resource; and cumulative impacts. With the implementation of mitigation measures, the following impacts would be reduced to a less than significant level: development in areas that could be affected by geologic hazards associated with unstable soils conditions; and erosion or unstable slope or soil conditions.

Hazards and Hazardous Materials

The Hazards and Hazardous Materials chapter of the EIR describes existing and potentially occurring hazards and hazardous materials within the project areas. Potential impacts posed by these hazards to the environment, as well as to workers, visitors, and residents within and adjacent to the project areas are discussed in the chapter. More specifically, the chapter describes hazards to the public or the environment from exposure to hazardous materials, such as soil contamination stemming from past uses of the site, and interferences with emergency response plans.

The proposed project would have less than significant impacts in regards to the following: exposure of people to hazards and hazardous materials during construction activities; exposure of people to hazards and hazardous materials during operation of the project; and long-term hazards-related impacts from the proposed project in combination with existing and future developments in the Sacramento area.

Hydrology, Water Quality, and Drainage

The Hydrology, Water Quality, and Drainage chapter of the EIR describes existing drainage and water resources for the proposed project, and evaluates the potential impacts of the proposed project with respect to flooding, surface water resources, and groundwater resources.

The proposed project would have less-than-significant impacts in regard to the following: construction-related surface water quality; water quality degradation associated with urban runoff from operation of the project; and long-term increases in peak stormwater runoff flows from the proposed project in combination with existing and future developments in the Sacramento area. With implementation of mitigation measures, the potentially significant impacts related to flooding and exposure of people and structures to flood hazards on the project site would be reduced to less than significant levels. Impacts related to off-site improvements associated with removal of proposed project site from a FEMA SFHA would remain *significant and unavoidable* because the specific projects required in order to remove the site from a FEMA SFHA have not been identified at this time.

Noise and Vibration

The Noise and Vibration chapter of the EIR describes the existing noise environment in the project vicinity, and identifies potential impacts and mitigation measures related to the conversion and operation of the proposed project. In addition, the Noise chapter describes the potential noise impacts due to construction. 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.

Project-specific impacts would have less than significant impacts related to exposure of future residential and commercial areas to vibration due to project construction, highway traffic, or rail operations. Cumulative noise impacts would also be less than significant. The following impacts would be reduced to a less than significant level with implementation of mitigation measures: project-related traffic noise level increases; project-related operational noise level increases; and compliance with the City of Sacramento Noise Ordinance. Even with implementation of mitigation measures, impacts related to existing noise sources within the project area would remain significant and unavoidable.

Parks and Recreation

The Parks and Recreation chapter of the EIR describes the recreation facilities within the project area and the associated potential impacts to the facilities that would result from the proposed project. This chapter also discusses thresholds of significance for such impacts, and develops mitigation measures and monitoring strategies, if necessary.

The proposed project would have less than significant impacts in regard to the provision of adequate recreational facilities on the project site in combination with existing and future development in the Sacramento area. A potentially significant impact in regard to causing or accelerating substantial physical deterioration of existing area parks or recreational facilities and/or creating a need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan would result; however, with implementation of mitigation measures, the impact would be reduced to a less than significant level.

Public Services

The Public Services chapter of the EIR summarizes information regarding the existing public services setting and identifies potential new demands resulting from the proposed project on law enforcement, fire protection and life-safety services, schools, and libraries in the project area. Parks and recreational facilities are discussed separately in Chapter 5.12 of the EIR.

The proposed project would have less than significant impacts in regards to the following: increase in demand for law enforcement services; increase in demand for fire protection and emergency services; increase in demand for library services; and long-term impacts to public services and facilities from the proposed project in combination with existing and future developments in the Sacramento area. A potentially significant impact would result from the increase in number of students attending schools in the area; however, with implementation of mitigation measures, the impact would be reduced to a less than significant level.

Transportation and Circulation

The Transportation and Circulation chapter of the EIR discusses existing and cumulative transportation and circulation conditions associated with the proposed project. The analysis includes consideration of automobile traffic impacts on roadway capacity, transit impacts, bicycle impacts, parking impacts, construction impacts, and pedestrian impacts. Quantitative transportation analyses were conducted for the following scenarios:

- Existing (without project);
- Existing Plus Project;
- Existing Plus No School Alternative;

- Cumulative (no project);
- Cumulative Plus Project; and
- Cumulative Plus No School Alternative.

The proposed project would have less than significant impacts related to the following: the freeway mainline (project-level); freeway weaving segments (project-level); freeway ramp queuing (project-level); pedestrian and bicycle circulation (project-level); parking; construction-related traffic; pedestrian and bicycle circulation (Existing Plus No School Alternative scenario); freeway weaving segments (cumulative); pedestrian and bicycle circulation (cumulative); and an increase in demand for the public transit system (cumulative).

With the implementation of mitigation measures, the following impacts would be reduced to a less than significant level: South Watt Avenue and Jackson Road intersection (project-level); South Watt Avenue from Jackson Road to Fruitridge Road (project-level); an increase in demand for the public transit system (project-level); Power Inn Road and 14th Avenue (cumulative); Jackson Road and Folsom Boulevard (cumulative); Florin Perkins Road and Folsom Boulevard (cumulative); Florin Perkins Road and Kiefer Boulevard (cumulative); and Jackson Road and 14th Avenue (cumulative).

Impacts related to the following would remain significant and unavoidable: South Watt Avenue and Folsom Boulevard (project-level); South Watt Avenue and Folsom Boulevard (cumulative); Watt Avenue and US 50 Westbound Ramps (cumulative); South Watt Avenue from Jackson Road to Fruitridge Road (cumulative); Jackson Road from 14th Avenue to South Watt Avenue (cumulative); the freeway mainline (cumulative); freeway ramp junctions (cumulative); and freeway ramp queuing (cumulative).

Urban Design and Visual Resources

The Urban Design and Visual Resources chapter describes existing visual and aesthetic resources for the project site and the region, and evaluates potential impacts of the project with respect to aesthetic resources. In addition, the *Sacramento 2030 General Plan* and Sacramento City Code goals, policies and regulations pertaining to aesthetics are described. The California Environmental Quality Act (CEQA) describes the concept of aesthetic resources in terms of scenic vistas, scenic resources (such as trees, rock outcroppings, and historic buildings within a state scenic highway), the existing visual character or quality of the project site, and light and glare impacts.

The proposed project would have less than significant impacts related to the following: overexcavation and recompaction of on-site soils; degradation of the existing visual character or quality of the project site and surroundings; scenic vistas and visual resources; light and glare; and long-term impacts to the visual character of the region from the proposed project in combination with existing and future developments in the Sacramento area.

Utilities, Service Systems, and Energy

The Utilities, Service Systems, and Energy chapter of the EIR describes the utility systems and facilities within the project area and the associated potential impacts resulting from the proposed project. Utilities and service systems considered in the analysis include water supply, wastewater treatment and collection, solid waste collection and disposal, electric power, natural gas. The chapter discusses thresholds of significance for such impacts, and develops mitigation

measures and monitoring strategies. Consideration was given to on-site as well as off-site infrastructure facilities. In addition, the Utilities, Service Systems, and Energy chapter describes the existing energy resources derived from petroleum products, electricity, and natural gas available within the project area and analyzes the impacts related to these resources that would result from the implementation of the proposed project.

The proposed project would have less than significant impacts in regard to the following: increased demand for water supply, treatment, and/or conveyance; increased demand for wastewater collection and treatment; increased demand for solid waste disposal services; wasteful, inefficient, or unnecessary consumption of energy; increased demand on electric and natural gas infrastructure; and long-term impacts to public services and utilities from the proposed project in combination with existing and future developments in the Sacramento area.

2.3 SUMMARY OF PROJECT ALTERNATIVES

The following summary describes the alternatives to the proposed project that are evaluated for environmental impacts in this Draft EIR. For a complete discussion of project alternatives, see Chapter 8, Project Alternatives.

Alternatives Considered and Dismissed

The Draft EIR studies a reasonable range of alternatives to the project that meet the objectives of the project and attempt to reduce the environmental impacts of the proposed project. In addition to the alternatives listed below, three alternatives were considered, but dismissed. The first was an On-Site Detention Alternative, which includes the development of an on-site detention basin that would replace the Urban Farm portion of the project. The On-Site Detention Alternative was dismissed, because the Alternative would not be expected to reduce any impacts as compared to the proposed project.

The second was an Existing General Plan without Annexation Alternative, which includes buildout of the 202.8-acre site pursuant to the existing General Plan land use designations and does not include annexation of the 34-acre Special Study Area. Similar to the first Alternative, the Existing General Plan without Annexation Alternative was dismissed because the Alternative would not be expected to reduce any significant impacts as compared to the proposed project.

The third was an Increased Density Alternative, which includes buildout of the project site at the maximum density allowable under the existing land use designations. Although the Increased Density Alternative would require less acreage for residential uses and allows for improved pedestrian and bicycle connections, concentrated impact areas would result. Therefore, the Increased Density Alternative was dismissed, because the overall impacts would be similar to the proposed project.

Alternatives Evaluated

The following alternatives are evaluated in Chapter 8 of this Draft EIR.

No Project/No Build Alternative

The No Project/No Build Alternative is defined in the Project Alternatives chapter as the continuation of the existing condition of the project site. The No Project/No Build Alternative

would allow the project site to continue as a former aggregate mining site utilized primarily for wash ponds, dryings beds, a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins plant, and an electrical transmission line. The No Project/No Build Alternative would not meet any of the project objectives.

Reduced Density Alternative

The Reduced Density Alternative would be buildout of the project site pursuant to the minimum density allowable under the existing designations, which are Suburban Center and Traditional Neighborhood Medium Density General Plan land uses. The Reduced Density Alternative would include the development of approximately 1,198 residential units and 135,000 square feet of commercial uses, which is approximately 167 fewer residential units and 87,000 fewer square feet of commercial uses than the proposed project. A rezone would still be required in order to be consistent with the existing General Plan land use designations and rezoning of the annexation area.

Off-Site Alternative

The Off-Site Alternative would involve the construction the same type and intensity of land uses as the proposed project on an alternative location. As the Aspen II property is directly adjacent to the proposed project site to the east, is still in close proximity to transit, and is similar in size and existing land uses to the proposed project site, the Aspen II property would be considered the most feasible Off-Site Alternative and would generally meet the objectives of the project. Although annexation of the Aspen II property would be required, as the site is not currently within City limits, because the property is near the City's border, annexation of the property would not be expected to cause "islands" of unincorporated territory. However, the site is not within the existing City Sphere of Influence boundaries. In addition to an annexation, a General Plan amendment and rezone would still be required.

Environmentally Superior Alternative

In addition to the discussion and comparison of impacts of the alternatives to the proposed project, CEQA requires that an "environmentally superior" alternative be selected and the reasons for such selection disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least adverse impacts. CEQA requires that if the No Project Alternative is the environmentally superior alternative, an additional alternative that is environmentally superior must be identified.

Finally, it should be noted that environmental considerations are among other factors that must be considered by the public and the decision makers in deliberations on the proposed project and the alternatives. Other factors of importance include urban design, economics, social factors, and fiscal considerations.

The environmentally superior alternative must reduce the overall impact of the proposed project. The No Project/No Build Alternative would reduce impacts to nearly all environmental issue areas, except impacts to parks and recreation where the Alternative would result in equal impacts as the proposed project. However, Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "[...] if the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Of the other alternatives analyzed, the Reduced Density Alternative provides the greatest reduction in the level of environmental impacts while meeting the overall objectives of the project, such as providing needed housing in the Highway 50 corridor, providing commercial uses adjacent to a major regional thoroughfare and employment hub, and promoting good planning practices by providing housing on an infill/reuse site. By reducing the commercial uses and residential units, the Reduced Density Alternative would reduce impacts in the following areas: land use, population, and housing; air quality and climate change; hydrology, water quality, and drainage; noise and vibration; parks and recreation; public services; transportation and circulation; and utilities, service systems, and energy. However, it should be noted that impacts related to air quality and climate change, noise and vibration, transportation and circulation would be expected to remain significant and unavoidable. Therefore, the Reduced Density Alternative is the Environmentally Superior Alternative.

2.4 SUMMARY OF IMPACTS AND MITIGATION MEASURES

The following table (Table 2-1) summarizes the impacts identified in the environmental section of this Draft EIR. The proposed project impacts are identified for each technical chapter (5.1-5.12) in the Draft EIR in Table 2-1. The level of significance of each impact, any mitigation measures required for each impact, and the resultant level of significance after implementation of mitigation measures, are given within the table.

**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.1 Air Quality and Climate Change			
5.1-1 Impacts related to a short-term increase in construction-generated NO _x emissions.	PS	5.1-1(a) <i>Prior to the issuance of a grading permit, the applicant shall incorporate the following mitigation measures into the construction contract documents, which shall be submitted for review and approval by the City Engineer:</i> <ul style="list-style-type: none"> • <i>Water all exposed surfaces with adequate frequency for continued moist soil. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. However, do not overwater to the extent that sediment flows off the site;</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 wheel washers for all exiting trucks, or wash off all trucks and equipment when leaving the site.</i> • <i>Treat site accesses to a distance of 100 feet from the paved road edge 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.</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> 	LS

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> • <i>Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);</i> • <i>Suspend excavation, grading, and/or demolition activity within wind speeds exceed 20 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>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 with 48 hours. The phone number of the District shall also be visible to ensure compliance.</i> • <i>Conduct a visual survey of all in-operation equipment at least weekly. 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 supersede other SMAQMD or State rules or regulations.</i> 	

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>5.1-1(b) <i>Prior to the issuance of a grading permit, the applicant shall submit a SMAQMD-approved plan, which demonstrates that heavy duty off-road vehicles used in construction of the project achieve a project-wide fleet-average 20 percent NO_x reduction and 40 percent particulate reduction compared to the most recent CARB fleet average at the time of construction. While the required reductions are feasible when compared to existing fleet averages, it may not be feasible to achieve such reductions in future years once Tier IV engines begin replacing older equipment. At that time, the plan shall be revised to require that the reductions be based on a comparison to the current (2011) fleet average.</i></p> <p>5.1-1(c) <i>Prior to the issuance of a grading permit, the applicant shall submit to the City of Sacramento 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 or fuel throughput 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>	

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>5.1-1(d) During construction, the project contractor 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 City of Sacramento shall be notified within 48 hours of identification of non-compliant equipment.</p> <p>5.1-1(e) Prior to the issuance of a grading permit, the project applicant shall provide a construction mitigation fee to the SMAQMD sufficient to offset project emissions of NO_x above 85 pounds per day. The amount of the fee shall be based on updated construction scheduling and equipment lists, and shall be calculated using the SMAQMD method of estimating excess emissions. The current price of NO_x construction offsets calculated by SMAQMD is \$16,640 per ton. In addition, the project applicant shall ensure that its contractors maintain detailed construction equipment use records to ensure accurate calculation of fees.</p>	
5.1-2 Impacts related to an increase in PM ₁₀ and PM _{2.5} concentrations during construction.	S	5.1-2 Implement Mitigation Measures 5.1-1(a) through 5.1-1(e).	SU
5.1-3 Impacts related to an increase in health risks from diesel exhaust during construction.	PS	5.1-3 Implement Mitigation Measures 5.1-1(a) through 5.1-1(e).	LS
5.1-4 Impacts related to an increase in health risks from naturally occurring asbestos emissions.	LS	None required.	N/A

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.1-5 Impacts related to an increase in ROG and NO _x emissions during project operation.	S	5.1-5 <i>Prior to final map approval, the final map shall include implementation of the following mitigation measures, which are detailed within the AQMP for the proposed project, for review and approval by the Planning Department:</i> <ul style="list-style-type: none"> • <i>Incorporation of non-residential bike parking;</i> • <i>Incorporation of non-residential “end of trip” facilities (showers, lockers);</i> • <i>Incorporation of long term bike parking at apartments and condominiums;</i> • <i>Location of the project within ½ mile of Class 1 or 2 bike lane;</i> • <i>Incorporation of a pedestrian network;</i> • <i>Removal of pedestrian barriers;</i> • <i>Incorporation of a bus shelter for planned transit service;</i> • <i>Incorporation of traffic calming measures;</i> • <i>Incorporation of a pedestrian pathway through parking;</i> • <i>Incorporation of off-street parking;</i> • <i>Orientation toward planning transit, bike, pedestrian corridors;</i> • <i>Inclusion of high-density residential development;</i> • <i>Incorporation of multiple and direct street routing;</i> • <i>Inclusion of a mixed-use component;</i> • <i>Prohibition of fireplaces and wood stoves;</i> • <i>Installation of energy star roofs;</i> • <i>Provision of shade and/or use of light-colored/high-albedo materials for at least 30</i> 	SU

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>percent of the site's non-roof impervious surfaces;</p> <ul style="list-style-type: none"> • Inclusion of permanent TMA membership and funding requirement; • Incorporation of walkable communities; • Incorporation of a transit corridor; • Incorporation of an urban farm; and • Incorporation of an urban forest. 	
5.1-6 Impacts related to an increase in CO concentrations causing a violation of the ambient CO standards.	LS	None required.	N/A
5.1-7 Impacts related to the creation of objectionable odors.	S	None feasible.	SU
5.1-8 Impacts related to the creation of health risks from exposure to DPM.	LS	None required.	N/A
5.1-9 Cumulative impacts related to an increase in ROG and NO _x emissions during project operation.	S	5.1-9 Implement Mitigation Measure 5.1-3.	SU
5.1-10 Cumulative impacts related to an increase in CO concentrations causing a violation of the ambient CO standards.	LS	None required.	N/A

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.1-11 Cumulative impacts related to an increase in CO ₂ e emissions.	LS	<i>None required.</i>	N/A
5.1-12 Cumulative impacts related to construction and operation of the proposed project conflicting with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.	LS	<i>None required.</i>	N/A
5.2 Biological Resources			
5.2-1 Impacts to wetlands and associated resources.	PS	5.2-1 <i>Prior to the issuance of a grading permit, the project applicant shall either create 0.25-acre of seasonal wetland habitat or purchase 0.25-acre of seasonal wetland credits at an agency-approved mitigation bank with a service area covering the project site.</i>	LS
5.2-2 Impacts related to the loss of federally listed vernal pool crustacean habitat.	PS	5.2-2 <i>If vernal pool fairy shrimp or tadpole shrimp are discovered during the second wet season survey, the project applicant shall communicate with USFWS regarding potential impacts to vernal pool crustacean species. Based on the results of the communication, the project applicant shall comply with the Endangered Species Act, including obtaining an incidental take permit, if it is determined that take will, in fact, occur. Mitigation requirements for take of vernal pool fairy shrimp and vernal pool tadpole shrimp shall be consistent with the "Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California."</i>	LS

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.2-3 Impacts related to the loss of Swainson's hawk foraging habitat.	PS	5.2-3 <i>Prior to the issuance of a grading permit, the project applicant shall dedicate land at a ratio of 0.75:1 (38 acres for the proposed project). The location of the replacement foraging habitat shall be coordinated with, and approved by, the California Department of Fish and Game, and shall be acquired prior to development of the project site.</i>	LS
5.2-4 Impacts related to the disturbance or removal of an active Swainson's hawk nest.	PS	5.2-4 <i>One of the following mitigation options shall be implemented by the project applicant to avoid disturbing or removing any active Swainson's hawk nest tree at the time of project implementation:</i> <ul style="list-style-type: none"> • <i>If project construction plans require removal of a tree that represents potential nesting habitat for Swainson's hawk and other raptors, the project applicant shall remove such trees during the non-nesting season, prior to initiation of major construction.</i> <p style="text-align: center;"><i>Or</i></p> <ul style="list-style-type: none"> • <i>If suitable raptor nest trees are on-site and construction is planned during the nesting season for the Swainson's hawk or other raptors, the project applicant shall conduct preconstruction surveys to determine if raptors are using suitable nest trees. If Swainson's hawks or other raptors have active nests on the property, construction shall be avoided within a buffer area designated to protect the nesting pair. The size of the buffer will be determined by a</i> 	LS

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p><i>qualified biologist with experience in raptor nest protection and will be based on the location of the nest, the background level of disturbance in the nest area (i.e., from ongoing aggregate operation activities and land use activities on adjacent lands), and observed reactions of the nesting hawks to human activity.</i></p>	
<p>5.2-5 Impacts related to the loss of occupied burrowing owl habitat.</p>	<p>PS</p>	<p>5.2-5 <i>Prior to construction, the project applicant shall initiate preconstruction surveys of the project site to determine if burrowing owls are present during the non-nesting season prior to any breeding season construction. If burrowing owls are not present, further mitigation is not required. If occupied burrows are found during the non-breeding season, the project applicant shall implement standard "passive relocation" measures to exclude burrowing owls from burrows that need to be disturbed, consistent with CDFG guidelines. If breeding owls are found on-site during the nesting season, the project applicant shall establish a no-disturbance buffer around nesting burrows until the nesting is completed. The buffer distance and verification of completion of nesting will be determined by a qualified biologist with experience working with burrowing owls and construction activities. If it is not feasible to avoid removal of nesting burrows, the project applicant shall consult with the CDFG to determine if any options for active nest relocation are feasible.</i></p>	<p>LS</p>
<p>5.2-6 Impacts related to the loss of tricolored blackbird foraging habitat.</p>	<p>PS</p>	<p>5.2-6 <i>Implement Mitigation Measure 5.2-3.</i></p>	<p>LS</p>

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.2-7 Impacts related to the loss of marginal habitat for the northwestern pond turtle.	LS	<i>None required.</i>	N/A
5.2-8 Impacts related to the loss of habitat for the valley elderberry longhorn beetle.	LS	<i>None required.</i>	N/A
5.2-9 Impacts to special-status plant species.	LS	<i>None required.</i>	N/A
5.2-10 Impacts related to the loss of active raptor nest trees.	PS	5.2-10 <i>Implement Mitigation Measure 5.2-4.</i>	LS
5.2-11 Impacts related to the loss of heritage and/or protected trees.	PS	5.2-11 <i>Prior to construction, the project applicant shall submit for the review and approval of the City of Sacramento Planning Department and the Sacramento County Community Planning and Development Department a tree mitigation plan that identifies the number and location of trees that will be planted as replacement trees. If the project site cannot support all of the required replacement trees, the applicant shall deposit in the County's Tree Preservation Fund a sum equivalent to the replacement cost of the number of trees that cannot be accommodated. In addition, if an on-site mitigation area is not available due to site limitations, the applicant shall mitigate off-site for the impacts pursuant to Sacramento County General Plan Policy CO-136.</i>	LS
5.2-12 Cumulative loss of biological resources in the City of Sacramento and the effects of ongoing urbanization in the region.	PS	5.2-12 <i>Implement Mitigation Measures 5.2-1 through 5.2-11.</i>	LS

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.3 Cultural Resources			
5.3-1 Impacts related to the substantial change in the significance of historical or archaeological resources or the direct or indirect destruction of a unique paleontological resource, site, or unique geologic feature.	PS	<p>5.3-1(a) <i>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 earth-moving activities, all work within 100 feet of the resource shall be halted, and the applicant shall consult with a qualified archeologist, representatives of the City and a 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.</i></p> <p>5.3-1(b) <i>If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.</i></p> <p><i>If a Native American archeologist, ethnographic, or spiritual resources are discovered, 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>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</i></p>	LS

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p><i>affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.</i></p> <p><i>5.3-1(c) If a human bone or bone of unknown origin is found during earth-moving activities, all work shall stop within 100 feet of the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment 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.</i></p>	
5.3-2 Disturbance or destruction of previously unknown archaeological resources in combination with other development in the Sacramento area.	PS	5.3-2 Implement Mitigation Measures 5.3-1(a), (b), and (c).	LS
5.4 Geology, Soils, and Mineral Resources			
5.4-1 Impacts related to development in areas that could be affected by geologic hazards associated with unstable soils conditions including expansive soils and subsidence, potentially exposing people to risk	PS	5.4-1(a) Prior to issuance of grading permit, the applicant shall submit a design-level geotechnical analysis, for review and approval of the City Engineer. The geotechnical analysis report shall include, but not limited to, soil test boring or test bits with soil sampling, laboratory testing and additional engineering evaluation to determine the	LS

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
from these hazards.		<p><i>depth and consistency of the native soils and undocumented fill. In addition, the geotechnical analysis report shall include, but not limited to, conclusions and specific recommendations regarding the following:</i></p> <ul style="list-style-type: none"> • <i>Site preparation;</i> • <i>Soil expansion potential;</i> • <i>Foundation alternatives;</i> • <i>Liquefaction;</i> • <i>Slope Stability;</i> • <i>Floor support;</i> • <i>Site drainage;</i> • <i>Pavement design; and</i> • <i>Quality and ability of the soil to support plant and tree life.</i> <p><i>5.4-1(b) At least 72 hours prior to the placement of imported fill, the applicant shall have the potential fill inspected by a qualified geotechnical consultant to ensure that all fill being used for fills less than five feet below design grade have a plasticity index of less than or equal to 12, and that all soils are clean and free of deleterious materials, organic materials, and shall not contain particles greater than six inches in size. The results of the geotechnical analysis shall be submitted to the City Engineer prior to placement of fill.</i></p> <p><i>5.4-1(c) Prior to placement of imported fill, the applicant shall have the excavation surface inspected by a qualified geotechnical consultant to ensure the stability of the excavation bottom. Should the site be found to be</i></p>	

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 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p><i>unstable or contain loose or deleterious materials, the applicant shall perform required mitigation as identified by the geotechnical consultants and approved by the City Engineer. Mitigation for unstable fill could include, but is not limited to the following:</i></p> <ul style="list-style-type: none"> • <i>Restrict fill activities to occur when the excavation bottom is dry and stable during warm weather; or</i> • <i>Require that the placement of geotextile fabric be placed prior to granular import fill. The geotextile fabric would be required to be Mirafi 600X or equivalent. Granular fill would consist of well-graded crushed materials, such as Class 2 aggregate base of Caltrans Standard Specifications, but may also consist of other granular imported materials. Uniform crushed rock may be used as a stabilizing layer provided that the crushed rock is completely wrapped in the geotextile fabric.</i> 	
5.4-2 Impacts related to development in areas that could be affected by seismic hazards, such as ground rupture, groundshaking, and liquefaction, potentially exposing people to risk from these hazards.	LS	None required.	N/A
5.4-3 Impacts related to substantial erosion or unstable slope or soil conditions through alteration of topographic features, dewatering, or changes in drainage pattern.	PS	5.4-3 Implement Mitigation Measure 5.4-1(a).	LS
5.4.4 Impacts related to loss of structural	LS	None required.	N/A

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
support due to potential liquefaction or lateral spreading.			
5.4-5 Damage to foundations, pavements, and other structures from expansive soils.	LS	<i>None required.</i>	N/A
5.4-6 Loss of availability of a known State, regional, and/or locally valuable mineral resource.	LS	<i>None required.</i>	N/A
5.4-7 The proposed project would contribute to the continuing buildout of Sacramento and surrounding areas, and would combine with existing and future developments to increase the potential for related geological impacts and hazards.	LS	<i>None required.</i>	N/A
5.4-8 Long-term impacts to the mineral resources of the region from the proposed project in combination with existing and future developments in the Sacramento area.	LS	<i>None required.</i>	N/A
5.5 Hazards and Hazardous Materials			
5.5-1 Implementation of the proposed project could result in the exposure of people to hazards and hazardous materials during construction activities.	LS	<i>None required.</i>	N/A
5.5-2 Implementation of the proposed project could result in the exposure	LS	<i>None required.</i>	N/A

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
of people to hazards and hazardous materials during operation of the project.			
5.5-3 Long-term hazards-related impacts from the proposed project in combination with existing and future developments in the Sacramento area.	LS	<i>None required.</i>	N/A
5.6 Hydrology, Water Quality, and Drainage			
5.6-1 Construction-related impacts to surface water quality.	LS	<i>None required.</i>	N/A
5.6-2 Impacts related to water quality degradation associated with urban runoff from operation of the project.	LS	<i>None required.</i>	N/A
5.6-3 Impacts related to flooding as a result of implementation of the project.	PS	5.6-3 <i>Prior to the issuance of a grading permit, the plans for the project shall illustrate that all of the recommendations contained within the drainage report will be implemented on the project site, for the review and approval of the City of Sacramento Department of Utilities.</i>	LS
5.6-4 Impacts related to exposure of people and structures to flood hazards on the project site.	PS	5.6-4 <i>In the event that the Project site or a portion thereof is designated in a SFHA, the applicant, prior to the approval of any building permit that would allow for the construction of a new building, shall demonstrate to the City through appropriate analysis and the issuance of a Letter of Map Revision (LOMR), Conditional Letter of Map Revision (CLOMR), or a new FIRM by FEMA that the property for which such permit is sought is outside of a FEMA Special Flood Hazard Area (SFHA).</i>	LS

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5.6-5	S	<i>None feasible.</i>	SU
5.6-6	LS	<i>None required.</i>	N/A
5.7 Noise and Vibration			
5.7-1	PS	<p>5.7-1(a) <i>All second-floor windows of residences constructed within 250 feet of the centerline of either South Watt Avenue or Jackson Road from which those roadways are visible shall have a minimum Sound Transmission Class Rating of 33.</i></p> <p>5.7-1(b) <i>Mechanical ventilation shall be provided for all residences constructed in traffic noise environments exceeding 60 dB Ldn (See contours on Figure 5.7-3), which will allow occupants of those residences to close doors and windows as desired for additional acoustical isolation.</i></p> <p>5.7-1(c) <i>The medium- and high-density developments proposed along South Watt Avenue shall be designed to maximize the setback between that roadway and proposed common outdoor activity areas. In addition, those common outdoor activity areas shall be located so as to be completely shielded from view of South Watt Avenue</i></p>	LS

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 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p><i>by intervening structures or topography.</i></p> <p>5.7-1(d) <i>The proposed school shall be designed to maximize the setback between school classroom areas and South Watt Avenue. In addition, school classrooms shall be designed to provide an exterior to interior noise level reduction sufficient to reduce traffic noise levels within classrooms to 45 dB Leq or less during hours in which school is normally in session.</i></p> <p>5.7-1(e) <i>All prospective residents of residences located within 250 feet of either Jackson Road or South Watt Avenue shall be provided statements disclosing that both roadways are substantial noise sources and that variation in traffic conditions or atmospheric conditions can result in variations in perceived noise levels.</i></p>	
<p>5.7-2 Impacts related to the project resulting in exterior noise levels at the project site that would exceed the upper value of the normally acceptable category for various land uses, or residential interior noise levels of 45 dBA L_{dn} or greater, due to project-related operational noise level increases.</p>	<p>PS</p>	<p>5.7-2 <i>When site plans for the proposed commercial uses and the urban farm have been developed, an analysis of specific noise levels at proposed residences within the project site shall be conducted and the appropriate noise mitigation measures shall be implemented in the design of the commercial and urban farm areas.</i></p>	<p>LS</p>
<p>5.7-3 Impacts related to exterior noise levels at the project site that would exceed the upper value of the normally acceptable category for various land uses, or residential interior noise levels of 45 dBA L_{dn}</p>	<p>S</p>	<p>5.7-3(a) <i>All prospective residents of residences located within the noise contours shown on Figure 5.7-7 shall be provided statements disclosing that operations at the Teichert Perkins plant can and do occur at night, and that variations in those operations or atmospheric conditions can result in variations in perceived noise levels.</i></p>	<p>SU</p>

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 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>or greater, due to existing noise sources within the project area.</p>		<p>5.7-3(b) <i>Project development shall not extend into the noise contours shown on Figures 5.7-6 or 5.7-7 until such a time as either operations at the Teichert Perkins plant have ceased, or until a comprehensive analysis of the specific noise generation of each major component of the Teichert rock and ready-mix plants has been undertaken to identify appropriate source noise control treatment options, and such treatments have been implemented. The focus of such options is the overall reduction in noise generation of those plants such that noise levels received within the proposed development would ultimately satisfy the Sacramento Noise Ordinance Standards during daytime and nighttime hours, respectively. Source noise control measures which shall be considered include the following:</i></p> <ul style="list-style-type: none"> • <i>Suspension of acoustic curtains adjacent to the noisiest plant equipment;</i> • <i>Complete or partial enclosure of the noisiest plant equipment;</i> • <i>Ensuring that all screen-decks utilize quiet technology such as urethane screens;</i> • <i>Line aggregate chutes and hoppers with heavy urethane sheets to both dampen the metal structures and minimize impact noise associated with aggregates falling onto metal surfaces;</i> • <i>Utilize alternatives to backup beeper warning devices such as strobes, radar based systems, growlers, etc.; and/or</i> • <i>Replacement of older noisier equipment with quieter equipment.</i> 	

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 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>5.7-3(c) <i>All prospective residents of residences located within the noise contours shown on Figure 5.7-9 shall be provided statements disclosing that operations at the Teichert conveyor operations can and do occur during both daytime and nighttime hours, and that variations in those operations or atmospheric conditions can result in variations in perceived noise levels.</i></p> <p>5.7-3(d) <i>At such a time as development within the project site is projected to encroach into the noise contours shown on Figure 5.7-9, the conveyor system shall be relocated to a position closer to Jackson Highway to create a greater buffer between the residential construction and the noise impact contours of the conveyors.</i></p> <p>5.7-3(e) <i>At such a time as development within the project site is projected to encroach into the noise contours shown on Figure 5.7-9, either with the conveyor system in its current configuration, or following relocation of the conveyor (Mitigation Measure 5.7-3[d]), a solid noise barrier shall be constructed adjacent to the conveyor system to further reduce noise levels at residences constructed within the project site. Such a barrier could take the form of an earthen berm, solid wall, or combination of berms and walls. The noise reduction provided by such a barrier would depend on the relative heights of the conveyor, top of barrier, and nearby residences, as well as the relative distances between the conveyor and noise barrier, and distance from noise barrier to receiver.</i></p>	

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.7-4 Impacts related to project construction noise levels not being in compliance with the City of Sacramento Noise Ordinance.	PS	<p>5.7-4 If haul trucks are used to transport soil and aggregate materials from the off-site construction areas, construction activities shall be limited to daytime hours when within the following areas:</p> <ul style="list-style-type: none"> • 1,400 feet of the existing residences located on Newton Drive; • 1,400 feet of unshielded locations near the soil borrow areas; and • 1,400 feet of the residence on the south side of Jackson Highway near the Mayhew Acquisition soil storage areas. 	LS
5.7-5 Impacts related to exposure of future residential and commercial areas to vibration ppv greater than 0.5 inches per second or exposure of historic buildings and archaeological sites to vibration ppv greater than 0.2 inches per second due to project construction or highway traffic and rail operations.	LS	<i>None required.</i>	N/A
5.7-6 Cumulative noise impacts.	LS	<i>None required.</i>	N/A
5.8 Parks and Recreation			
5.8-1 Impacts related causing or accelerating substantial physical deterioration of existing area parks or recreational facilities and/or creating a need for construction or expansion of recreational facilities	PS	5.8-1 Prior to recording the final map, the plans shall show a calculation of the final park acreage to be provided as part of the project in relation to the park acreage that is required to be dedicated. The improvement plans shall be submitted for the review and approval of the City Planning Department. If the project does not include the	LS

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
beyond what was anticipated in the General Plan.		<i>required acreage, the project applicant shall pay an in-lieu fee to the City or enter into a private recreational facilities agreement for future improvements to serve residents.</i>	
5.8-2 Impact related to the provision of adequate recreational facilities on the project site in combination with existing and future development in the Sacramento area.	LS	<i>None required.</i>	N/A
5.9 Public Services			
5.9-1 Increase in demand for law enforcement services.	LS	<i>None required.</i>	N/A
5.9-2 Increase in demand for fire protection and emergency services.	LS	<i>None required.</i>	N/A
5.9-3 Increase in the number of students attending schools in the area.	PS	5.9-3 <i>Prior to the issuance of building permits, the applicant(s) shall be required to pay all applicable school impact fees in effect at the time of building permit issuance. Payment shall be ensured by the Community Development Department.</i>	LS
5.9-4 Increase in demand for library services.	LS	<i>None required.</i>	N/A
5.9-5 Long-term impacts to public services and facilities from the proposed project in combination with existing and future developments in the Sacramento area.	LS	<i>None required.</i>	N/A

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Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.10 Transportation and Circulation			
Existing Plus Project			
5.10-1 Intersections	S	<p>5.10-1(a) <i>South Watt Avenue and Folsom Boulevard – This intersection is located in the Folsom Boulevard corridor. The Sacramento County General Plan acceptable level of service is LOS E at this location. Adding a third southbound left turn would mitigate the impact to a less than significant, but it is considered not feasible since it will require additional right of way, which is beyond the control of the applicant.</i></p> <p><i>Due to the recently constructed intersection improvements and built-up nature of this intersection, no short-term intersection improvements are identified. An urban interchange is included at this location in the 2035 Metropolitan Transportation Plan (MTP) for implementation in 2030. The applicant shall be required to pay a fair share contribution toward construction of the urban interchange.</i></p> <p><i>As no feasible mitigation measure has been identified at the subject intersection, this impact remains significant and unavoidable.</i></p>	SU
	S	<p>5.10-1(b) <i>South Watt Avenue and Jackson Road - Provide two eastbound lanes through the intersection. The eastbound approach shall consist of a left turn lane, two through lanes, and a right turn lane. This mitigation measure shall be implemented by 90 percent of development as measured by the p.m. peak hour trip generation. This mitigation measure would</i></p>	LS

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<i>improve the average intersection delay to 52.3 seconds at an acceptable LOS D. This mitigation measure would reduce the impact of the project to a less than significant level.</i>	
5.10-2 Roadway Segments	S	5.10-2 <i>South Watt Avenue - Jackson Road to Fruitridge Road – Widen the roadway to four through travel lanes. This mitigation measure shall be implemented by 20 percent of development as measured by daily trip generation. This mitigation measure would improve the level of service to C at a volume-to-capacity ratio of 0.72. This mitigation measure would reduce the impact of the project to a less than significant level.</i>	LS
5.10-3 Freeway Mainline	LS	<i>None required.</i>	N/A
5.10-4 Freeway Ramp Junctions	LS	<i>None required.</i>	N/A
5.10-5 Freeway Weaving Segments	LS	<i>None required.</i>	N/A
5.10-6 Freeway Ramp Queuing	LS	<i>None required.</i>	N/A
5.10-7 Pedestrian and Bicycle Circulation	LS	<i>None required.</i>	N/A
5.10-8 Transit System	PS	5.10-8 <i>The project applicant shall coordinate with Regional Transit to provide transit facilities to serve the project area along Jackson Road and / or South Watt Avenue.</i>	LS
5.10-9 Parking	LS	<i>None required.</i>	N/A
Existing Plus No School Alternative Scenario			
5.10-10 Intersections	S	5.10-10 <i>South Watt Avenue and Jackson Road - Provide two eastbound lanes through the intersection. The eastbound approach shall consist of a left turn lane, two through lanes, and a right turn lane. This mitigation measure shall be implemented by 95 percent of development as measured by the p.m. peak hour trip generation. This mitigation measure would improve the average intersection delay to 52.7 seconds at an acceptable LOS D. This mitigation</i>	LS

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<i>measure would reduce the impact of the alternative to a less than significant level.</i>	
5.10-11 Roadway Segments	S	5.10-11 <i>South Watt Avenue - Jackson Road to Fruitridge Road – Widen the roadway to four through travel lanes. This mitigation measure shall be implemented by 20 percent of development as measured by daily trip generation. This mitigation measure would improve the level of service to C at a volume-to-capacity ratio of 0.72. This mitigation measure would reduce the impact of the alternative to a less than significant level.</i>	LS
5.10-12 Freeway Mainline	LS	<i>None required.</i>	N/A
5.10-13 Freeway Ramp Junctions	LS	<i>None required.</i>	N/A
5.10-14 Freeway Weaving Segments	LS	<i>None required.</i>	N/A
5.10-15 Freeway Ramp Queuing	LS	<i>None required.</i>	N/A
5.10-16 Pedestrian and Bicycle Circulation	LS	<i>None required.</i>	N/A
5.10-17 Transit System	PS	5.10-17 <i>The alternative applicant shall coordinate with Regional Transit to provide transit facilities to serve the alternative area along Jackson Road and / or South Watt Avenue. This mitigation measure would reduce the impact of the alternative to a less than significant level.</i>	LS
5.10-18 Parking	LS	<i>None required.</i>	N/A
Existing Plus Project and Existing Plus No School Alternative Scenarios			
5.10-19 Construction	PS	5.10-19 <i>Prior to beginning of construction, a construction traffic and parking management plan shall be prepared by the applicant to the satisfaction of the City Traffic Engineer and subject to review by all affected agencies. The plan shall ensure that acceptable operating conditions on local roadways and freeway</i>	LS

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		<p><i>facilities are maintained. At a minimum, the plan shall include:</i></p> <ul style="list-style-type: none"> • <i>The number of truck trips, time, and day of street closures.</i> • <i>Time of day of arrival and departure of trucks.</i> • <i>Limitations on the size and type of trucks, provision of a staging area with a limitation on the number of trucks that can be waiting.</i> • <i>Provision of a truck circulation pattern</i> • <i>Provision of driveway access plan so that save vehicular, pedestrian, and bicycle movements are maintained (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas).</i> • <i>Maintain safe and efficient access routes for emergency vehicles.</i> • <i>Manual traffic control when necessary.</i> • <i>Proper advance warning and posted signage concerning street closures.</i> • <i>Provisions for pedestrian safety.</i> <p><i>A copy of the construction traffic management plan shall be submitted to local emergency response agencies and these agencies shall be notified at least 14 days before the commencement of construction that would partially or fully obstruct roadways. Implementation of the mitigation measure would reduce this impact to a less than significant level.</i></p>	
Cumulative Plus Project			

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Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.10-20 Intersections	S	<p>5.10-20(a) <i>South Watt Avenue and Jackson Road – This impact could be mitigated by implementing a westbound double right turn lane. This mitigation measure would improve the average intersection delay to 120.4 seconds at LOS F in the p.m. peak hour. Adding the second westbound right turn lane would create a secondary impact to the adjacent property through the acquisition of additional right of way; this right of way is currently unavailable.</i></p> <p><i>The approved Sacramento County General Plan Update includes a high capacity intersection at this location. The project applicant shall contribute a fair share to the implementation of the high capacity intersection at this location. The improvements could include a grade separated depressed free westbound right turn movement and a triple southbound left turn movement. A pedestrian overcrossing above the grade separated depressed westbound right turn at the northeast corner of the intersection would be required. However, as the design details and funding mechanism for this high capacity intersection are not complete, this impact remains significant and unavoidable.</i></p>	SU
	S	<p>5.10-20(b) <i>Howe Avenue / Power Inn Road and Folsom Boulevard – Due to the built-up nature of this intersection, no feasible intersection improvements are identified.</i></p> <p><i>This intersection is located in the Folsom Boulevard</i></p>	SU

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Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p><i>corridor. The City of Sacramento 2030 General Plan level of service policy permits impacts at this location to be mitigated by "improvements to other parts of the city wide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to the listed road segment in order to conform to the General Plan.</i></p> <p><i>As no feasible mitigation measure has been identified at the subject intersection, and no alternative mitigation measure in accordance with General Plan policy has been identified, this impact remains significant and unavoidable.</i></p>	
	S	<p><i>5.10-20(c) Power Inn Road and 14th Avenue – The project applicant shall pay a fair share contribution toward restriping the westbound approach to provide left turn, through, through-right turn, and right turn lanes. This mitigation measure would improve the average intersection delay to 48.6 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the project to a less than significant level.</i></p>	LS
	S	<p><i>5.10-20(d) Jackson Road and Folsom Boulevard – The project</i></p>	LS

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	S	<p><i>applicant shall pay a fair share contribution toward providing an eastbound right turn overlap traffic signal phase. This mitigation measure would improve the average intersection delay to 67.7 seconds at an acceptable LOS E in the p.m. peak hour. This would reduce the impact of the project to a less than significant level.</i></p> <p>5.10-20(e) Florin Perkins Road and Folsom Boulevard – The project applicant shall pay a fair share contribution toward providing a northbound right turn overlap traffic signal phase. This mitigation measure would improve the average intersection delay to 53.6 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the project to a less than significant level.</p>	LS
	S	<p>5.10-20(f) Florin Perkins Road and Kiefer Boulevard – This unsignalized intersection experiences extensive delay for the westbound left turn movement. This intersection does meet peak hour traffic signal warrants both with and without the project. The project applicant shall pay a fair share contribution toward providing a traffic signal at this intersection, coordinated with the adjacent light rail crossing and the intersection of Florin Perkins Road and Folsom Boulevard. This mitigation measure would improve the average intersection delay to 33.3 seconds at an acceptable LOS C in the p.m. peak hour. This would reduce the impact of the project to a less than significant level.</p>	LS

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	S	5.10-20(g) Watt Avenue and US 50 Westbound Ramps – The cumulative analysis assumes implementation of the future interchange improvement. No additional feasible mitigation measure has been identified. The impacts of the project on this intersection remain significant and unavoidable .	SU
	S	5.10-20(h) Jackson Road and 14th Avenue – The project applicant shall pay a fair share to provide a westbound double right turn lane from Jackson Road (east leg) to Jackson Road (north leg) and to provide a southbound double left turn lane from Jackson Road (north leg) to Jackson Road (east leg). This mitigation measure would improve the average intersection delay to 32.1 seconds at an acceptable LOS C in the a.m. peak hour, and 42.7 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the project to a less than significant level.	LS
5.10-21 Roadway Segments	S	5.10-21(a) South Watt Avenue - Jackson Road to Fruitridge Road –No feasible mitigation measure has been identified. The roadway is assumed at its maximum number of six lanes per the City of Sacramento 2030 General Plan and Sacramento County proposed 2030 General Plan Update. Further widening would not be consistent with City of Sacramento General Plan goals and objectives to create pedestrian-friendly streets and Smart Growth Policies. The impacts of the project on this segment remain significant and unavoidable .	SU
	S	5.10-21(b) Jackson Road - 14th Avenue to South Watt Avenue –	SU

NI = No Impact; N/A = Not Applicable; LS = Less than Significant; PS = Potentially Significant; S = Significant; SU = Significant and Unavoidable

**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p><i>This roadway segment has been assumed to be four lanes wide (City of Sacramento 2030 General Plan). Further widening would not be consistent with City of Sacramento General Plan goals and objectives to create pedestrian-friendly streets and Smart Growth Policies. The widening will be considered in the State Route 16 (Jackson Road) Corridor Study that will identify future right-of-way requirements. The impacts of the project on this segment remain significant and unavoidable.</i></p>	
5.10-22 Freeway Mainline	S	<p>5.10-22 <i>No feasible mitigation measure has been identified. To fully mitigate this impact, it would be necessary to reduce the project traffic such that no additional traffic were added to the freeway segments. Additional widening of the freeway would reduce the severity of the impact, but was not considered feasible due to right-of-way restrictions and the numerous transportation structures that would need to be modified and/or replaced. The impacts of the project on the freeway mainline would remain significant and unavoidable.</i></p>	SU
5.10-23 Freeway Ramp Junctions	S	<p>5.10-23 <i>No feasible mitigation measure has been identified. The impacts of the project on freeway ramp junctions would remain significant and unavoidable.</i></p>	SU
5.10-24 Freeway Weaving Segments	LS	<p><i>None required.</i></p>	N/A
5.10-25 Freeway Ramp Queuing	S	<p>5.10-25 <i>No feasible mitigation measure has been identified. The impacts of the project on freeway ramp queuing would remain significant and unavoidable.</i></p>	SU
5.10-26 Pedestrian and Bicycle Circulation	LS	<p><i>None required.</i></p>	N/A
5.10-27 Transit System	LS	<p><i>None required.</i></p>	N/A
Cumulative Plus No School Alternative			

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.10-28 Intersections	S	<p>5.10-28(a) <i>South Watt Avenue and Jackson Road – This impact could be mitigated by implementing a westbound double right turn lane. This mitigation measure would improve the average intersection delay to 120.9 seconds at LOS F in the p.m. peak hour. Adding the second westbound right turn lane would create a secondary impact to the adjacent property through the acquisition of additional right of way; this right of way is currently unavailable.</i></p> <p><i>The approved Sacramento County General Plan Update includes a high capacity intersection at this location. The alternative applicant shall contribute a fair share to the implementation of the high capacity intersection at this location. The improvements could include a grade separated depressed free westbound right turn movement and a triple southbound left turn movement. A pedestrian overcrossing above the grade separated depressed westbound right turn at the northeast corner of the intersection would be required. However, as the design details and funding mechanism for this high capacity intersection are not complete, this impact remains significant and unavoidable.</i></p>	SU
	S	<p>5.10-28(b) <i>Power Inn Road and 14th Avenue – The alternative applicant shall pay a fair share contribution toward restriping the westbound approach to provide left turn, through, through-right turn, and right turn lanes. This mitigation measure would improve the average intersection delay to 49.2 seconds at an acceptable</i></p>	LS

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
	S	<p><i>LOS D in the p.m. peak hour. This would reduce the impact of the alternative to a less than significant level.</i></p>	LS
	S	<p><i>5.10-28(c) Florin Perkins Road and Folsom Boulevard – The alternative applicant shall pay a fair share contribution toward providing a northbound right turn overlap traffic signal phase. This mitigation measure would improve the average intersection delay to 53.7 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the alternative to a less than significant level.</i></p>	LS
	S	<p><i>5.10-28(d) Florin Perkins Road and Kiefer Boulevard – This unsignalized intersection experiences extensive delay for the westbound left turn movement. This intersection does not meet peak hour traffic signal warrants both with and without the alternative. The alternative applicant shall pay a fair share contribution toward providing a traffic signal at this intersection, coordinated with the adjacent light rail crossing and the intersection of Florin Perkins Road and Folsom Boulevard. This mitigation measure would improve the average intersection delay to 32.7 seconds at an acceptable LOS C in the p.m. peak hour. This would reduce the impact of the alternative to a less than significant level.</i></p>	LS
	S	<p><i>5.10-28(e) Watt Avenue and US 50 Westbound Ramps – The cumulative analysis assumes implementation of the future interchange improvement. No additional</i></p>	SU

NI = No Impact; N/A = Not Applicable; LS = Less than Significant; PS = Potentially Significant; S = Significant; SU = Significant and Unavoidable

Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
	S	<p><i>feasible mitigation measure has been identified. The impacts of the alternative on this intersection remain significant and unavoidable.</i></p> <p>5.10-28(f) Jackson Road and 14th Avenue – The alternative applicant shall pay a fair share to provide a westbound double right turn lane from Jackson Road (east leg) to Jackson Road (north leg) and to provide a southbound double left turn lane from Jackson Road (north leg) to Jackson Road (east leg). This mitigation measure would improve the average intersection delay to 32.0 seconds at an acceptable LOS C in the a.m. peak hour, and 42.0 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the alternative to a less than significant level.</p>	LS
5.10-29 Roadway Segments	S	<p>5.10-29(a) South Watt Avenue - Jackson Road to Fruitridge Road –No feasible mitigation measure has been identified. The roadway is assumed at its maximum number of six lanes per the City of Sacramento 2030 General Plan and Sacramento County 2030 General Plan Update. Further widening would not be consistent with City of Sacramento General Plan goals and objectives to create pedestrian-friendly streets and Smart Growth Policies. The impacts of the alternative on this segment remain significant and unavoidable.</p>	SU
	S	<p>5.10-29(b) Jackson Road - 14th Avenue to South Watt Avenue – This roadway segment has been assumed to be four lanes wide (City of Sacramento 2030 General Plan). Further widening would not be consistent with City of Sacramento General Plan goals and objectives to</p>	SU

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<i>create pedestrian-friendly streets and Smart Growth Policies. The widening will be considered in the State Route 16 (Jackson Road) Corridor Study that will identify future right-of-way requirements. The impacts of the alternative on this segment remain significant and unavoidable.</i>	
5.10-30 Freeway Mainline	S	5.10-30 <i>No feasible mitigation measure has been identified. To fully mitigate this impact, it would be necessary to reduce the project traffic such that no additional traffic was added to the freeway segments. Additional widening of the freeway would reduce the severity of the impact, but was not considered feasible due to right-of-way restrictions and the numerous transportation structures that would need to be modified and/or replaced. The impacts of the alternative on the freeway mainline would remain significant and unavoidable.</i>	SU
5.10-31 Freeway Ramp Junctions	S	5.10-31 <i>No feasible mitigation measure has been identified. The impacts of the alternative on freeway ramp junctions would remain significant and unavoidable.</i>	SU
5.10-32 Freeway Weaving Segments	LS	<i>None required.</i>	N/A
5.10-33 Freeway Ramp Queuing	S	5.10-33 <i>No feasible mitigation measure has been identified. The impacts of the alternative on freeway ramp queuing would remain significant and unavoidable.</i>	SU
5.10-34 Pedestrian and Bicycle Circulation	LS	<i>None required.</i>	N/A
5.10-35 Transit System	LS	<i>None required.</i>	N/A
5.11 Urban Design and Visual Resources			

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.11-1 Impacts related to the overexcavation and recompaction of on-site soils.	LS	<i>None required.</i>	N/A
5.11-2 Impacts related to degradation of the existing visual character or quality of the project site and surroundings.	LS	<i>None required.</i>	N/A
5.11-3 Impacts related to scenic vistas and visual resources.	LS	<i>None required.</i>	N/A
5.11-4 Impacts related to light and glare.	LS	<i>None required.</i>	N/A
5.11-5 Long-term impacts to the visual character of the region from the proposed project in combination with existing and future developments in the Sacramento area.	LS	<i>None required.</i>	N/A
5.12 Utilities, Service Systems, and Energy			
5.12-1 Impacts related to increased demand for water supply, treatment, and/or conveyance.	LS	<i>None required.</i>	N/A
5.12-2 Increased demand for wastewater collection and treatment.	LS	<i>None required.</i>	N/A
5.12-3 Increased demand for solid waste disposal services.	LS	<i>None required.</i>	N/A
5.12-4 Impacts related to wasteful, inefficient, or unnecessary consumption of energy.	LS	<i>None required.</i>	N/A
5.12-5 Impacts related to increased demand on electric and natural	LS	<i>None required.</i>	N/A

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**Table 2-1
 Summary of Impacts and Mitigation Measures**

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
gas infrastructure.			
5.12-6 Long-term impacts to utilities and service systems from the proposed project in combination with existing and future developments in the Sacramento area.	LS	<i>None required.</i>	N/A
6. Reorganization			
6-1 Impacts related to the loss of affordable housing.	LS	<i>None required.</i>	N/A
6-2 Impacts to the Sacramento Metropolitan Fire District.	LS	<i>None required.</i>	N/A
6-3 Impacts related to an increase in demand for fire protection services.	LS	<i>None required.</i>	N/A
6-4 Impacts to the Cordova Recreation and Park District.	LS	<i>None required.</i>	N/A
6-5 Impacts to the Sacramento Department of Parks and Recreation.	PS	6-5 <i>Implement Mitigation Measure 5.8-1.</i>	LS
6-6 Impacts to Cal-Am Water.	LS	<i>None required.</i>	N/A
6-7 Impacts to the City of Sacramento Department of Utilities.	LS	<i>None required.</i>	N/A
6-8 Impacts to agricultural lands.	LS	<i>None required.</i>	N/A
6-9 Impacts related to open space land uses.	LS	<i>None required.</i>	N/A
6-10 Impacts related to Environmental Justice.	LS	<i>None required.</i>	N/A
6-11 Impacts related to consistency with Sacramento County LAFCo	LS	<i>None required.</i>	N/A

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Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
6-12	LS	<i>None required.</i>	N/A
6-13	LS	<i>None required.</i>	N/A
6-14	LS	<i>None required.</i>	N/A

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3. PROJECT DESCRIPTION

3	PROJECT DESCRIPTION
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3.0 INTRODUCTION

The Project Description chapter of the Environmental Impact Report (EIR) describes the location, setting, and surrounding land uses for the project, as well as the project background, project objectives, and the components of the Aspen 1-New Brighton project (proposed project). In addition, the Project Description chapter includes a discussion of the required permits and approvals for the project.

3.1 PROJECT LOCATION

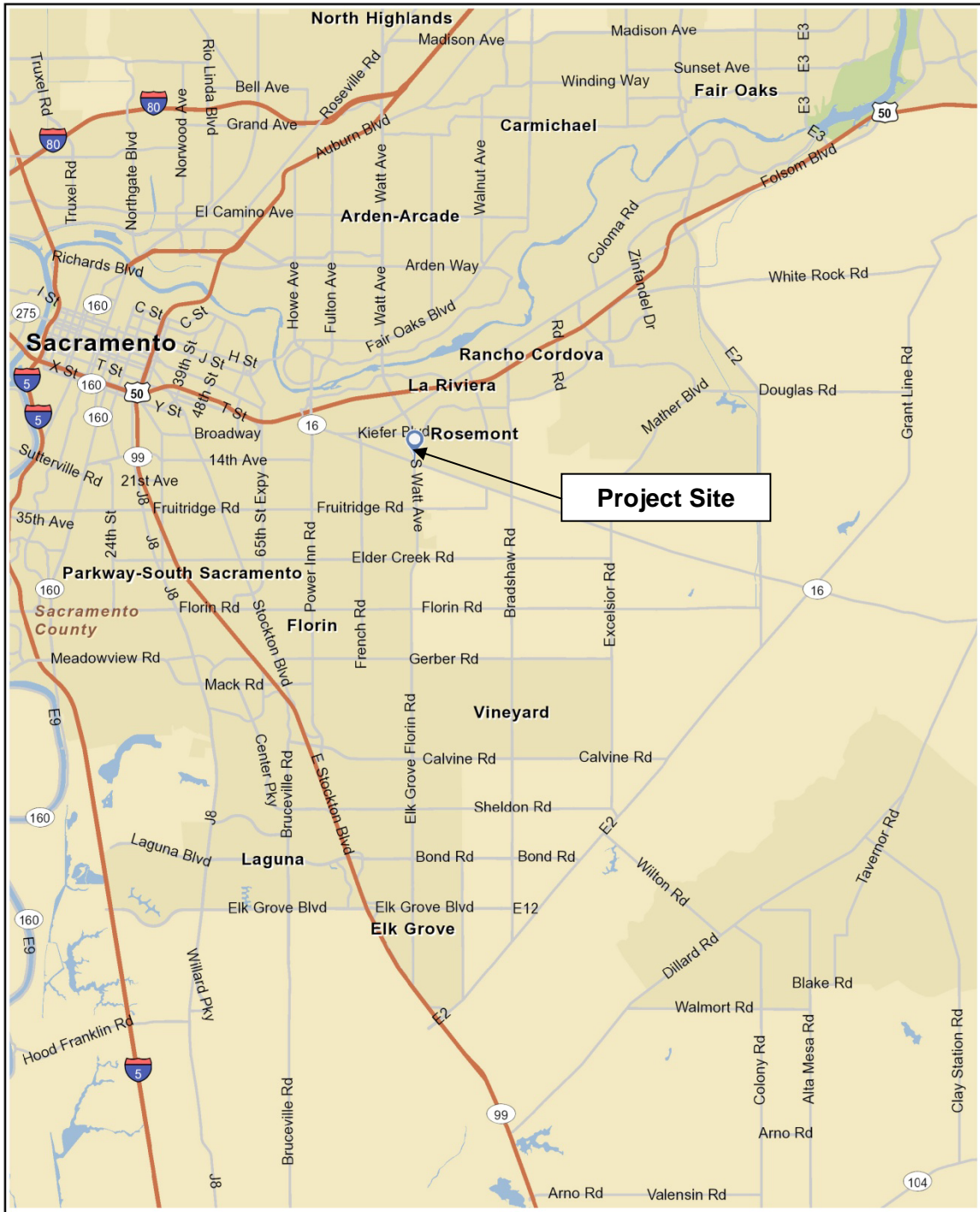
The project site is located at the southwest corner of Jackson Highway and South Watt Avenue in the City of Sacramento (See Figure 3-1). A small portion of the project site is located outside the city limits, within unincorporated Sacramento County. The project site encompasses approximately 232 acres and is identified by the following Sacramento County Assessor's Parcel Numbers (APNs): 078-0202-007, -008, -009, -010, and -013; 063-0014-002 and -006; 063-0053-001; 061-0150-003, -004, -015, -016, -027, and -028; and 061-0180-003, -017, and -025.

3.2 PROJECT SETTING AND SURROUNDING LAND USES

The proposed project site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins plant. Mining on the project site was completed in the late 1990s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves from other aggregate mining sites to the Teichert Perkins plant, and an electrical transmission line that transects the site in a northwesterly direction. The conveyor belt system utilizes a series of tunnel crossings under Jackson Highway and South Watt Avenue, which are proposed to be incorporated into the overall project. Due to the former mining activities, topography on the site is varied, and vegetation is limited. Existing trees are also limited, with the exception of some remnant Heritage Trees (See Chapter 5.2, Biological Resources, of this EIR for a discussion of potential impacts to Heritage Trees). Structures on-site include an existing corporation yard in the northwest corner of the site and metal shed in the northeast portion of the site. Prior to development, all structures would be removed.

Uses surrounding the project site include the Teichert Perkins plant to the north (an active sand and gravel processing and sales facility), the Teichert Aspen 2 property to the east (a former mine site similar to the project site), the L and D Landfill to the south (a Class III facility limited to commercial waste and recycling) as well as Fruitridge Road, and the former Florin Perkins Landfill to the west (See Figure 3-2). In addition, the Sacramento Regional County Sanitation District Arden Fall structure and bypass facility is located on the eastern boundary of the project site, west of South Watt Avenue, and two residences are located north of the site and south of Jackson Highway, one of which has a cellular tower facility.

**Figure 3-1
Regional Location Map**



**Figure 3-2
Project Location Map**



The project site's current General Plan land use designations are Traditional Neighborhood Medium Density and Suburban Center, and Special Study Area, and the site's current zoning designation is Heavy Industrial (M-2S-SWR and M-2S-R-SWR). The portion of the project site that is to be annexed has Sacramento County zoning designations of Heavy Industrial (M-2[SM]) and Industrial Reserve Surface Mining Combining Zone (IR-SM). Surrounding land use designations include the following: Traditional Neighborhood Medium Density to the northwest of the site; Employment Center Low Rise to the west and south of the site, Intensive Industrial to the north (Sacramento County), and Agricultural-Urban Reserve (Sacramento County) with an Aggregate Resource Area combining designation to the east of the site. Surrounding zoning designations include the following: Heavy Industrial (M-2S and M-2S-R) to the northwest, west, and south of the site; M-1S-R to the south of the site; Heavy Industrial (M-2) and Heavy Industrial Neighborhood Preservation Area Combining Zone M-2 (NPA) (Sacramento County) to the north of the site; Single-Family Residential (RD-5 and RD-10) (Sacramento County) to the northeast of the site; and Industrial Reserve Surface Mining Combining Zone (IR-SM) and Heavy Industrial Surface Mining Combining Zone (M-2-SM) (Sacramento County) to the east of the site.

3.3 PROJECT BACKGROUND

The proposed project site is part of what is commonly referred to as "Aspen 1," which is owned and operated by Teichert Land Co. As discussed above, the proposed project site is a former mine site which was utilized for sand and gravel extraction starting in approximately 1961 through the late 1960s. Since mining of the site was completed, the site has primarily been utilized for a variety of supporting uses for the Teichert Perkins plant, including drying beds and a conveyor-belt system. In addition, a nursery growing operation occurred at the northeast corner of the site for a number of years at the intersection of South Watt Avenue and Jackson Highway.

Prior to the preparation of this application, the City of Sacramento petitioned the Sacramento Local Agency Formation Commission (LAFCo) for a Sphere of Influence (SOI) Amendment for approximately 34 gross acres of land within the project site to be included within the City of Sacramento SOI. This request was approved by LAFCo on April 1, 2009 (Resolution No. LAFCo 2009-02-0401-05-08 [See Appendix D]) and the affected property is included within this project to facilitate a comprehensive master planning process. The LAFCo-approved SOI amendment also included Conditions of Approval. The two parcels (APNs 063-014-003 and -005) east of the project site and west of South Watt Avenue are owned by the Sacramento Regional County Sanitation District and are within the SOI, but are not part of the proposed project but are included within the requested reorganization/detachment. It should be noted that no annexation or related detachment applications are currently pending for the two parcels owned by the Sacramento Regional County Sanitation District.

3.4 PROJECT OBJECTIVES

The objectives for the proposed project are as follows:

1. Utilize a mix of iconic architecture, civic spaces, small neighborhood-serving retail, scale and massing in order to facilitate the transition of a former aggregate mining area into a vibrant mixed use community which embodies the smart growth principles within the City of Sacramento.

2. Provide needed housing in the Highway 50 corridor.
3. Provide a residential base for existing and future employment centers in nearby proximity, thus contributing to a reduction in vehicle miles traveled.
4. Establish a unique development pattern incorporating an urban farm and recreational facilities as its primary civic amenity to encourage outdoor recreation, education, and a sense of community centered on the farm complex.
5. Provide affordable housing as required by the City of Sacramento Inclusionary Housing Program.
6. Provide commercial uses adjacent to a major regional thoroughfare and employment hub.
7. Establish multi-modal forms of transit by encouraging pedestrian activity and connections to transit by providing open space, trails, transit ready medians, and residential housing in proximity to recreational and commercial opportunities within the Plan Area.
8. Promote good planning practice by providing much needed housing opportunities on an infill/reuse site, adjacent to existing services and close to existing employment and public services such as schools, post office, and future neighborhood commercial.

3.5 PROJECT COMPONENTS

Components of the proposed project include the proposed land use areas, infrastructure, required entitlements, LAFCo reorganization, and Inclusionary Housing Plan.

Land Use Concept

According to the Aspen 1-New Brighton Planned Unit Development (PUD) with Schematic Plan and Design Guidelines (*Draft New Brighton PUD Guidelines* [See Appendix E]), “[...] wellness, community, reinvigoration of community through infill/reuse, sustainability, a mixture of land uses, distinctive architecture, and alternative modes of travel are the hallmarks of the Land Use Plan. The guiding principles have been incorporated into the Conceptual Land Use Plan to create the foundation of a mixed-use community comprised of three land use districts.”¹

In addition, according to the *Draft New Brighton PUD Guidelines*, “The land use districts are intended to integrate a mix of land uses that are compatible, accessible, economically efficient, and organized around major thematic elements to create a definitive ‘sense of place.’” The three proposed land use districts are the Community Commercial District, the Four Corners Village Center District, and the Traditional Neighborhoods District.

See Figure 3-3 and Table 3-1 for the land use districts and a land use summary.

Figure 3-3
Land Use Districts

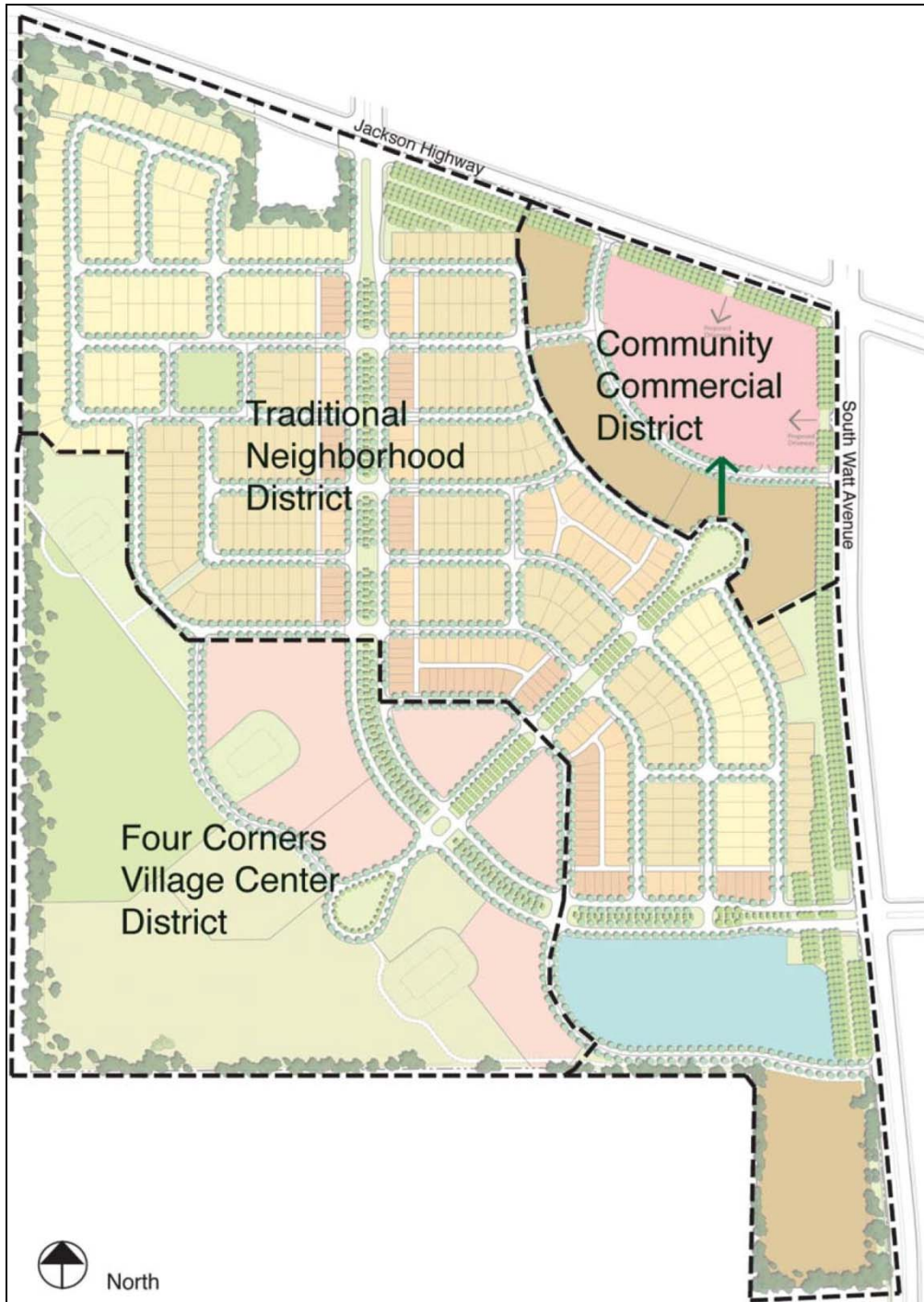


Table 3-1 Land Use Summary				
Symbol	Zoning Designation	Units	Estimated Building Square Footage	Gross Acres
R-1A SPD (PUD)	Single-Family Residential (includes elementary school)	482	-	133.5
RMX SPD (PUD)	Multi-Family Residential/Mixed Use	783	59,000	43.1
SC SPD (PUD)	Shopping Center	50	130,000	13.1
A SPD (PUD)	Urban Farm	50	33,000	28.2
A-OS SPD (PUD)	Parks/Open Space	-	-	14.4

Community Commercial District

The Community Commercial District would be located at the northeast corner of the community, at the junction of South Watt Avenue and Jackson Highway. The location would provide tremendous visibility and accessibility from within the project site, as well as to travelers along the South Watt Avenue and Jackson Highway corridors.

The land use plan takes advantage of this strategic location by placing the proposed Community Commercial District along the axis of the Aspen Promenade; linking this district to the Four Corners Village Center District, both visually and physically. Connecting these two districts would form anchors at either end of the Aspen Promenade, which would help facilitate joint use activities and easy travel between both districts.

The Community Commercial District is intended to provide a commercial and multi-family anchor to the community, with easy access to heavily traveled corridors and transit. Alternative modes of travel would be facilitated by a pedestrian-friendly street section along Aspen Promenade, an internal road connection within the project site to the District, a pedestrian shortcut, and an off-street trail that would connect the project site to the Community Commercial District.

Four Corners Village Center District

The Four Corners Village Center District would be located at the southwest portion of the project site, at the junction of the Aspen Promenade and Rock Creek Parkway. This central district has been designed to provide a combination of mixed uses including: neighborhood-oriented services, recreational areas, high density residential, and the Urban Farm – all of which are intended to support transit and foster community interaction. While varied in nature, land uses within the Four Corners Village Center District are intended to provide a community core. Ground level land uses along Rock Creek Parkway could include high density residential, neighborhood-serving commercial, and community facilities such as an amphitheater, a health club, a post office, a community meeting hall, agricultural supporting uses, and iconic landscape features. Second floor uses could include additional high density residential and/or office space

designed to overlook the district and provide a unique lifestyle choice for a more urban residential experience.

The southwest side of Rock Creek Parkway within the Four Corners Village Center District would provide a glimpse into the Urban Farm and Community Park. The Urban Farm, in conjunction with the comprehensive open space and park facilities in the District, serves to promote the guiding principles of wellness and community envisioned by the New Brighton Community.

Traditional Neighborhoods District

The Traditional Neighborhoods District would encompass the primary core of the project site. The district would be situated between the Four Corners Village Center District to the southwest and the Community Commercial District to the northeast, and would provide “distinguished” residential uses. The Traditional Neighborhoods District includes residential units of various densities with neighborhoods organized according to a gridded street system with short block lengths, pedestrian-friendly streets, and large planter areas to promote walkability.

Land Use Areas

The proposed project includes a Tentative Map that would establish parcels for residential, commercial, school, park, and urban farm uses. The project would include 133.5 acres of land designated Single-Family Residential located in the northwest, center, and southeast portions of the project site (including 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential) and 43.1 acres of land designated Multi-Family Residential/Mixed Use located in the central and southern portions of the project site. The project would include the following additional uses: 13.1 acres of land designated Shopping Center located in the northeast portion of the site; 14.4 acres of land designated Parks/Open Space in three separate areas throughout the project site; and 28.2 acres of land designated Urban Farm in the southwest portion of the project site.

The following narrative provides a description of the land use areas as identified on the Tentative Maps and the SPD-PUD Schematic Plan (See Figures 3-4 through 3-6). It should be noted that the acreages listed on the Large Lot Tentative Map (Figure 3-4) differ from those presented in Table 3-1, and throughout this section, because roadways, unused parcels, etc. are incorporated. The proposed land uses and associated areas are described as follows.

Residential Uses

The proposed project includes pockets of home sites clustered around smaller neighborhood parks and large medians, which are intended to provide for recreational amenities and future transit, as well as stormwater treatment and conveyance.

Single-Family Residential

The project would include a total of up to 482 single-family units on 133.5 acres of land designated Single-Family Residential located in the northwest, center, and southeast portions of the site. The land designated Single-Family Residential includes a variety of residential housing types, including single-family attached and detached units, as well as secondary units.

Figure 3-4
 Large Lot Tentative Map

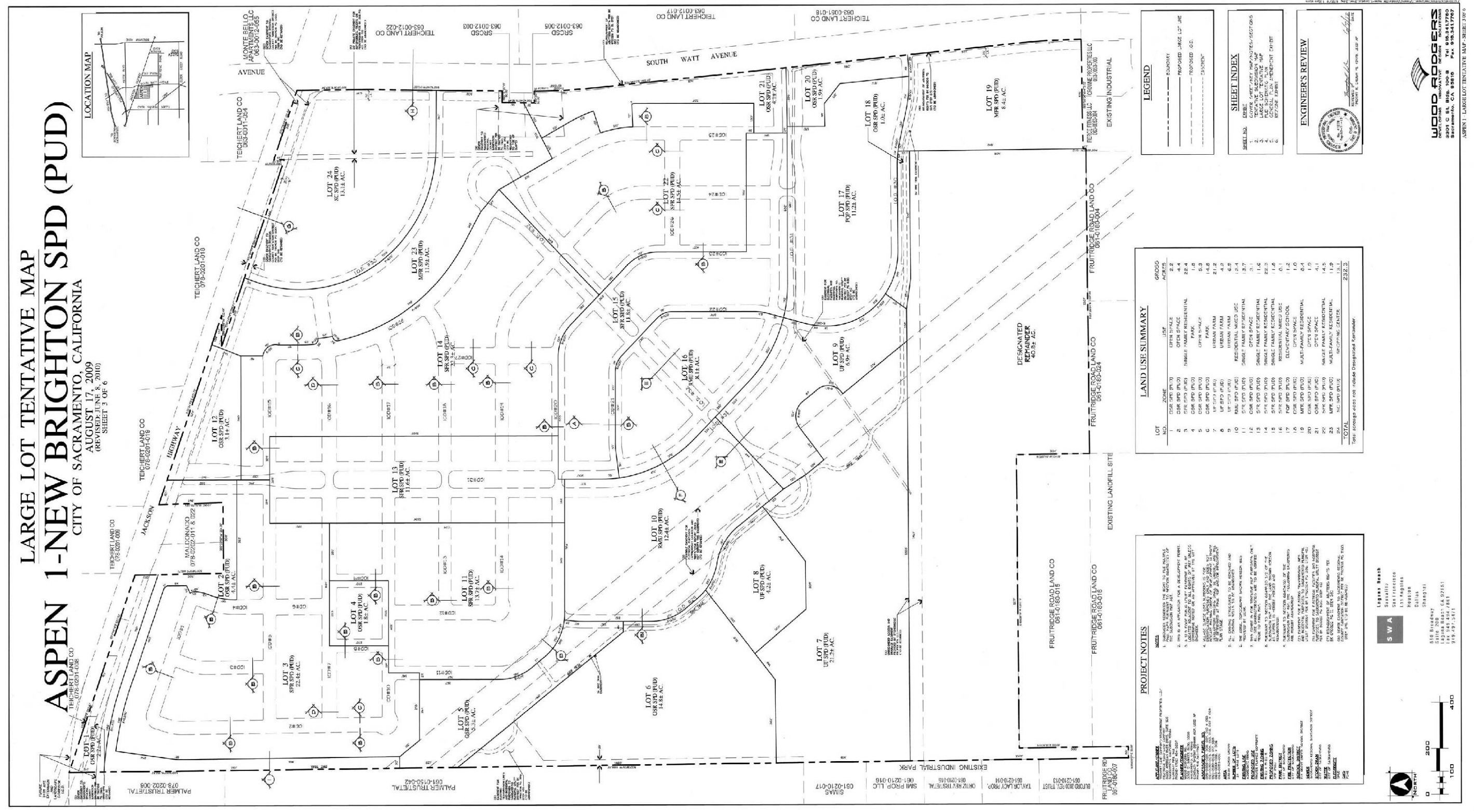


Figure 3-5
 Tentative Subdivision Map

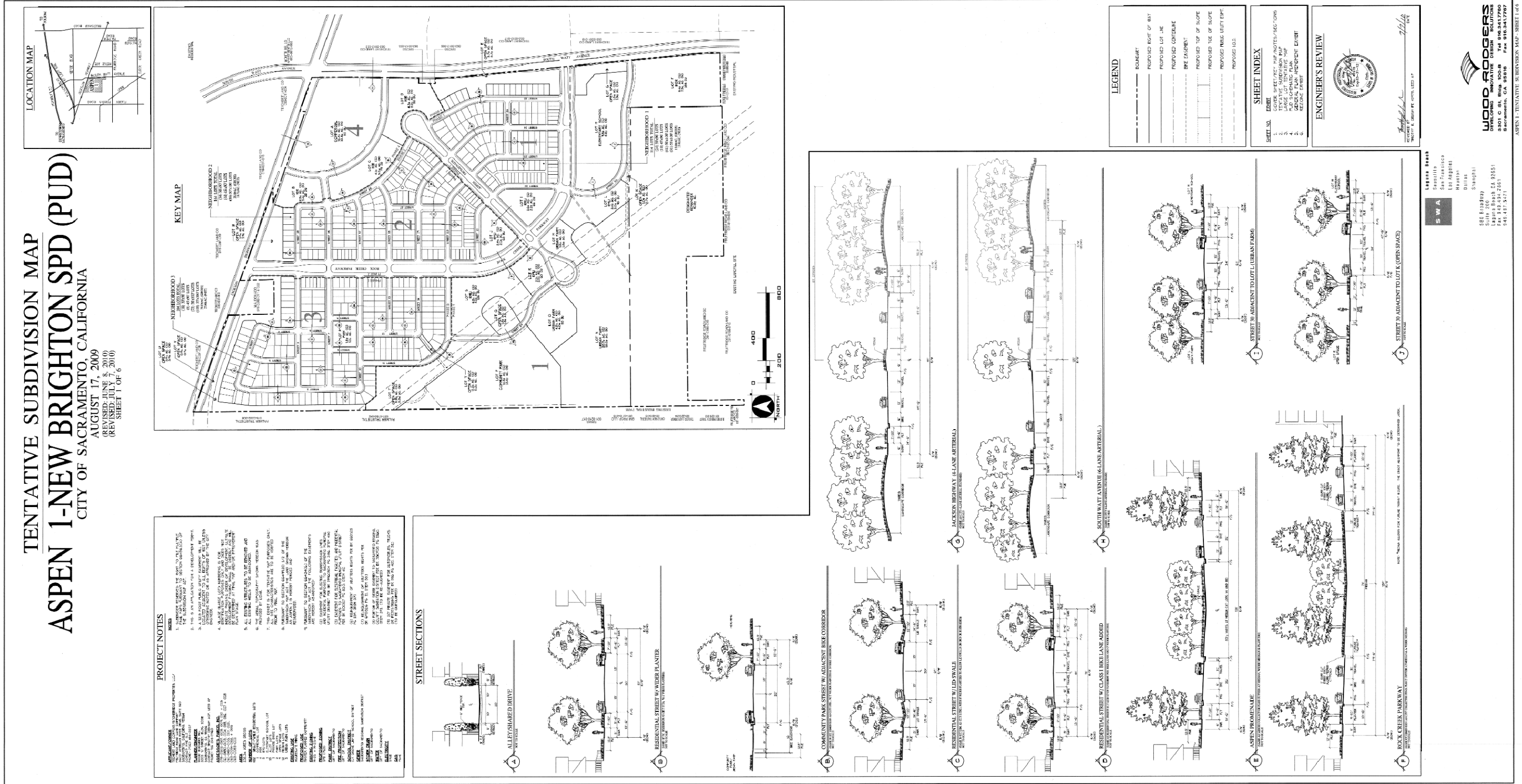


Figure 3-6
 SPD-PUD Schematic Plan



Multi-Family Residential/Mixed-Use

The project would include up to 405 units on 43.1 acres of land designated Multi-Family Residential/Mixed-Use, which would be limited to a density of 30 du/ac, in the center and southeast portions of the project site. The Multi-Family Residential/Mixed-Use component of the project would include an affordable component and would be limited to a density of 25 du/ac.

Elementary School

The project would include 8.8 acres to facilitate the development of an elementary school with an underlying land use designation of Single-Family Residential. The elementary school would be located in the southeast portion of the site. The underlying zoning designation for the school site would be Single-Family R 1A SPD (PUD) with a target density of nine units per net acre.

Commercial

The project would include 13.1 acres of land designated Shopping Center, which would be located in the northeast portion of the site. Up to 50 residential units could be developed within the land designated Shopping Center and the Estimated Building Square Footage under this designation would be 130,000 square feet.

Park and Open Space Facilities

This project provides a total of 14.4 acres of park and recreational areas that are eligible for Quimby Act Credit, as well as an additional 52.3 acres of open space and recreational areas, including the 28.2-acre Urban Farm Parcel and 28.5 acres of median boulevard parks, landscaped entries, corridors along streets, shortcuts, and slope areas. The project would include one Community Park, one Neighborhood Park, and two Mini-Parks (See Chapter 5.8, Parks and Recreation, of this Draft EIR for further detail regarding open space and park facilities).

Open Space

Open spaces are natural areas that are set aside primarily to enhance the City's environmental amenities. Recreational use of these areas may include trails, water quality facilities, and ornamental, native, and agricultural landscapes. Open spaces may be located in Neighborhood, Community, or Citywide/Regional Serving Parks and would have a service area, depending on the park type.

Urban Farm

The project would include a 28.2-acre urban farm parcel at the intersection of Rock Creek Parkway and the Aspen Promenade in the southwest corner of the project site. The intent of the urban farm is to celebrate the former agricultural heritage of the greater Brighton community along Jackson Highway and to provide local residents the ability to obtain locally-grown produce. The urban farm is designed to serve as the centerpiece of the community, and would provide a central location for residents and surrounding neighbors to obtain fresh produce and assorted agricultural goods. In addition, the urban farm could include up to 50 residential units, a potential school site or related educational facilities, and a community barn that can host community events such as farmers' markets, barn dances, outdoor movies, harvest festivals,

and craft fairs. The project would also include the establishment of a community garden where residents would be able to individually cultivate their own small garden plots. The community garden would be centrally located and in close proximity to the urban farm, and it is anticipated the community garden and urban farm would share resources and develop an interactive relationship.

Infrastructure

The primary infrastructure systems utilized by the proposed project would be sized to meet demands created by the proposed project. Project infrastructure proposed by the applicant includes roadways, water supply, wastewater systems, and storm drain systems.

Roadways

Primary access to the project site would be via entrances along Jackson Highway and South Watt Avenue. In addition, the project would be designed to allow for the connection of 14th Avenue to Jackson Highway. 14th Avenue is planned (as part of the City's General Plan Update) for realignment and extension from Florin Perkins Road to Jackson Highway (See Figure 3-7).

Water Supply

Water for the proposed project would be provided by the City of Sacramento. The project would include the construction of water infrastructure to connect to existing water mains that are adjacent to project site via one of the following options: 1) A proposed 12-inch water main within South Watt Avenue, which would connect to a proposed 24-inch water main that would extend south to connect to an existing 12-inch water main within South Watt Avenue and west to connect to an existing 24-inch water main within Fruitridge Road. An alternative connection for the first option would be through a proposed water main extending west along 23rd Avenue to Florin Perkins Road and south to connect with an existing 24-inch water main within Fruitridge Road; 2) A proposed 12-inch water main within South Watt Avenue, which would connect to a proposed 24-inch water main that would extend north to Kiefer Boulevard, then run west along Kiefer Boulevard to connect to an existing 24-inch water main within Folsom Boulevard; or 3) A proposed 12-inch water main within South Watt Avenue that would connect to a proposed 24-inch water main within Jackson Highway and then extend west along Jackson Highway to connect to an existing 24-inch water main within Folsom Boulevard (See Figure 3-8).

Wastewater

Wastewater treatment for the proposed project would be provided by the Sacramento Regional Sanitation District. Sewer infrastructure, within South Watt Avenue, would include a 15-inch sewer main that would connect to a new Sacramento Area Sewer District (SASD) sewer lift station and a 10-inch force main that would run from the proposed lift station to the existing central interceptor within Fruitridge Road. Sewer service would also be provided by the existing 72-inch force main within South Watt Avenue (See Figure 3-9).

Figure 3-7
Proposed 14th Avenue Realignment

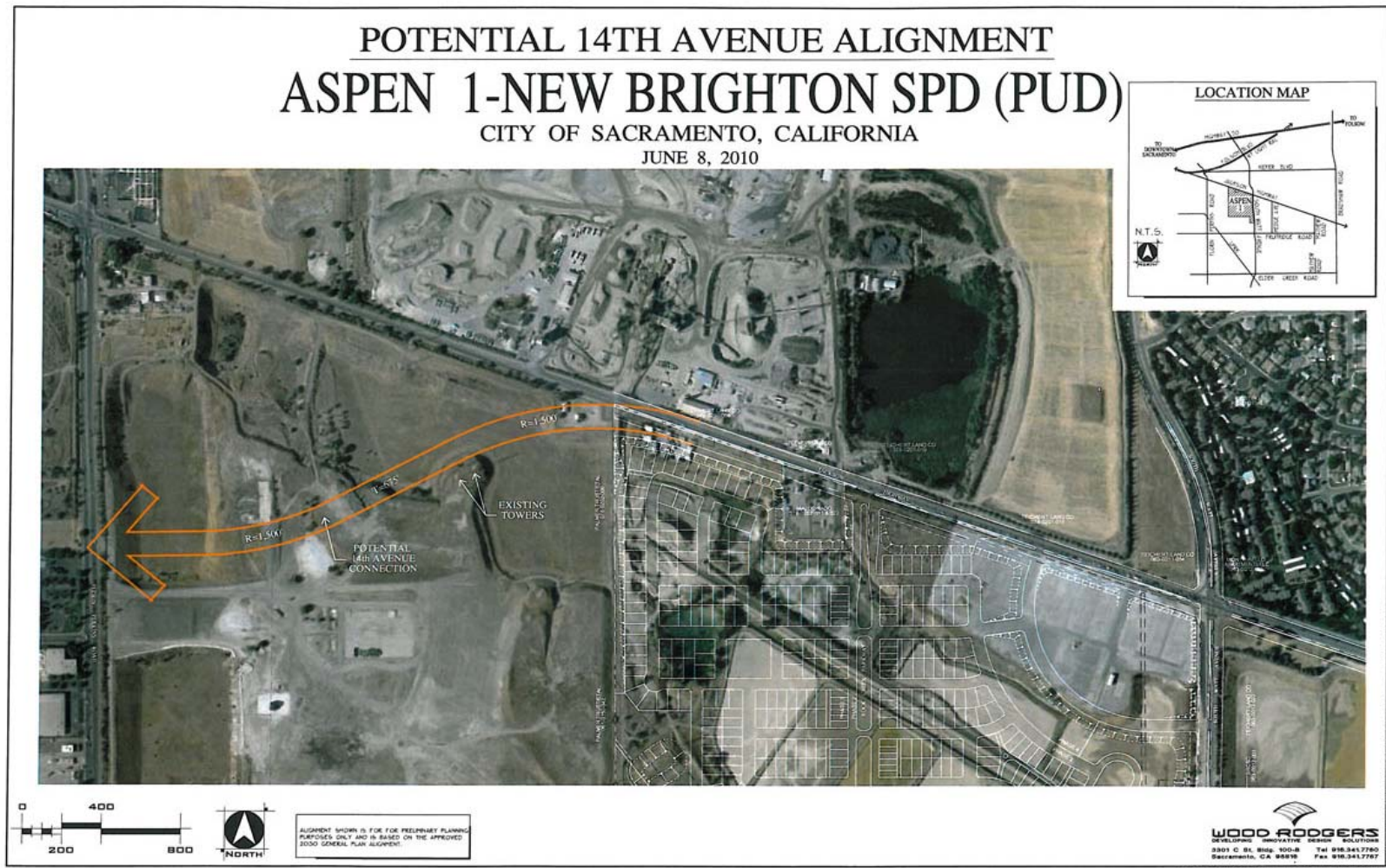


Figure 3-8
 Preliminary Off-Site Water Plan

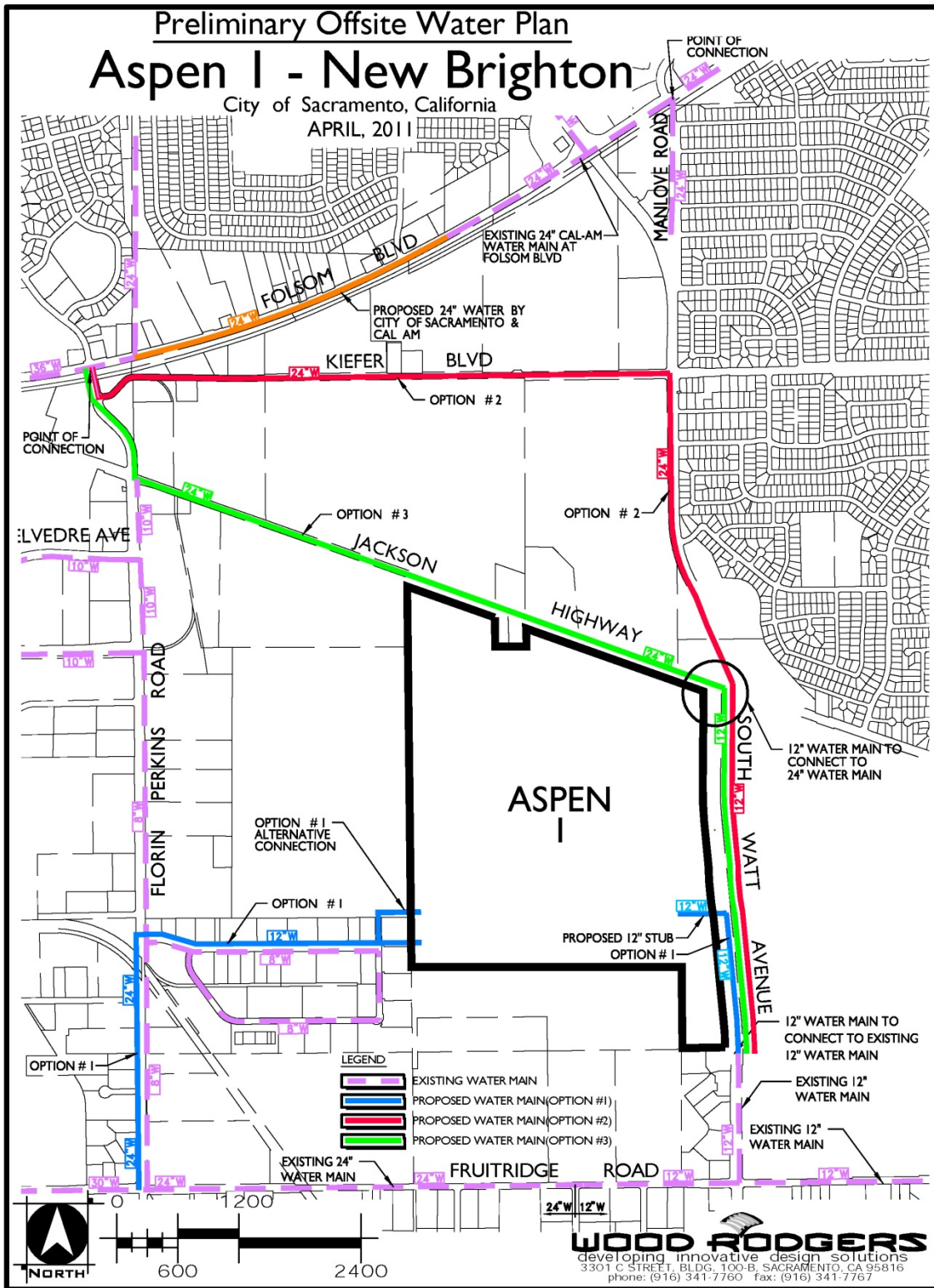
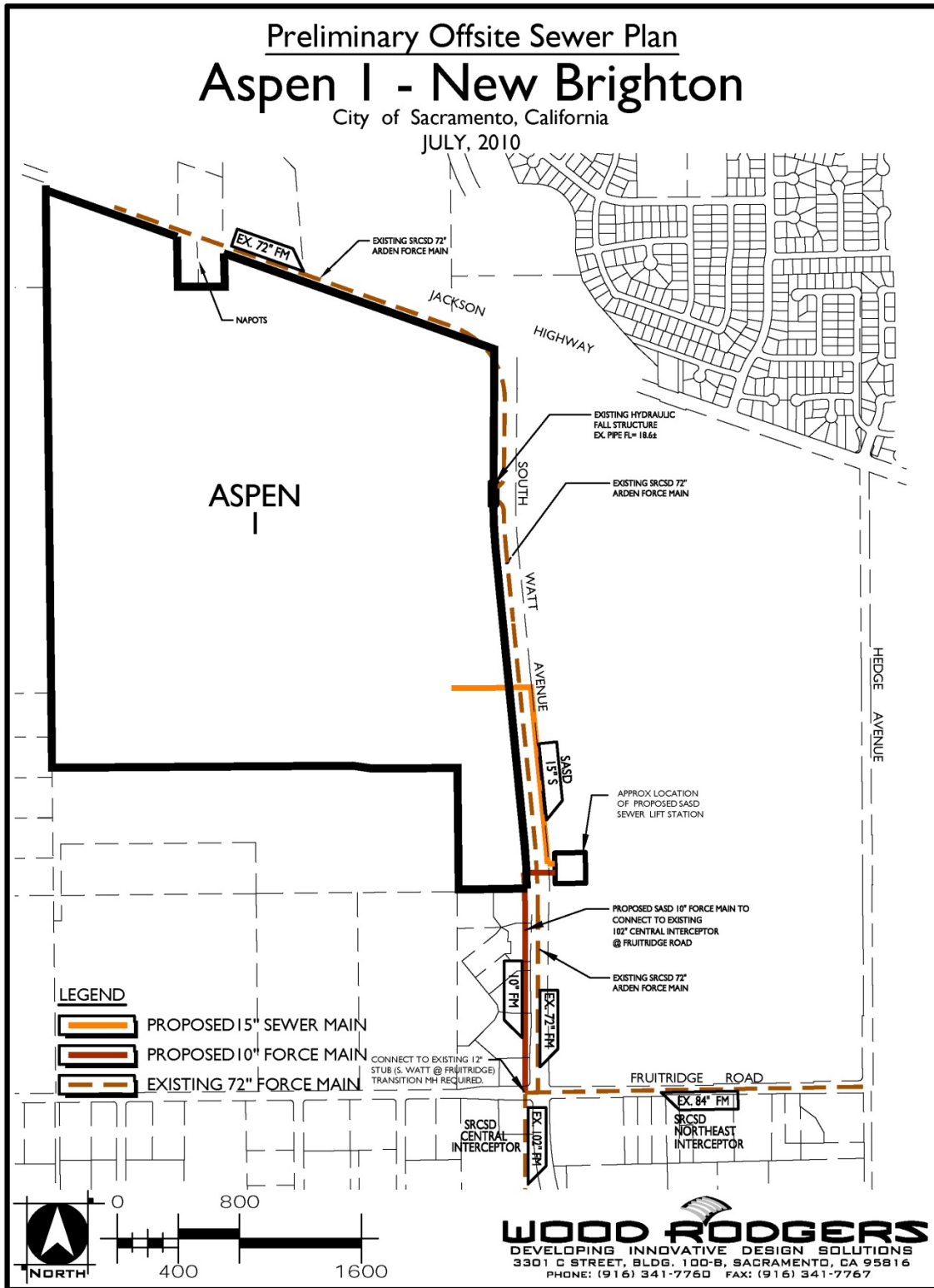


Figure 3-9
 Preliminary Off-Site Sewer Plan



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Stormwater Detention/Retention

The project's stormwater runoff would be designed to be handled through a series of Low Impact Development (LID) facilities throughout the project site to reduce stormwater runoff volumes and improve water quality. A network of bioretention and hydro-modification facilities, infiltration planters, open space stormwater planters, and vegetated median swales is designed to capture and reduce runoff, and ultimately direct any remaining runoff to an off-site retention basin located south of Jackson Highway and east of Mayhew Road in Sacramento County. (See Figure 3-10).

Construction

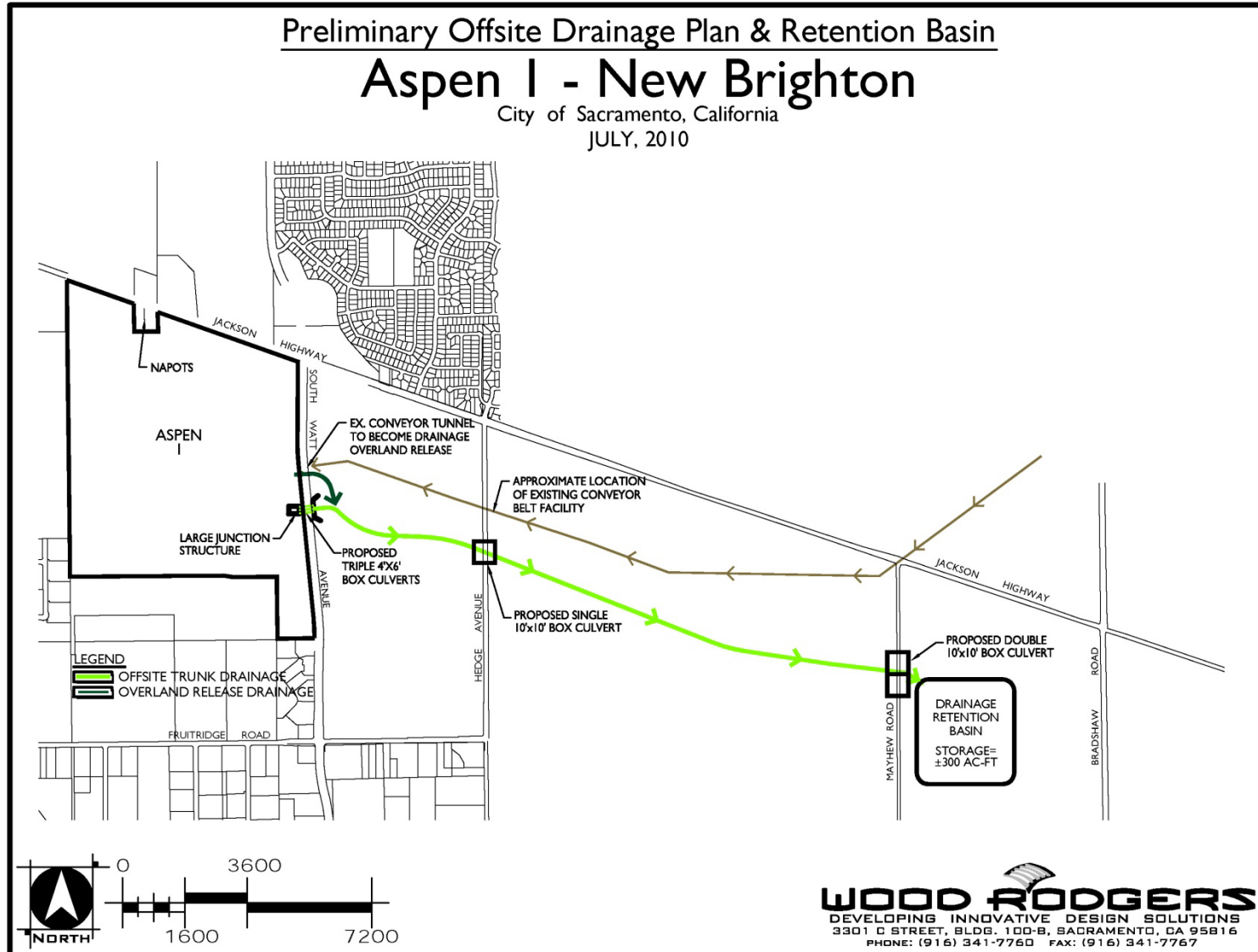
Project development would include the demolition of two on-site structures and the removal of the majority of on-site trees. Construction of the proposed project would require grading of the site for proposed roads and building pads, trenching for water, sewer, and storm drainage improvements, and the construction of the residential, commercial, park/open space, school, and urban farm uses. In addition, the proposed project would include stockpiling of up to 500,000 cubic yards of soil over the next five to 10 years. This soil would be used to raise the existing ground surface and recontour the project site.

Required Public Approvals

The City of Sacramento has discretionary authority and is the lead agency for the proposed project. The proposed project requires approval of the following entitlements by the City of Sacramento:

- General Plan Amendment to redesignate a portion of the site from Special Study Area to Traditional Neighborhood Medium Density (approximately 24.6 acres) and Special Study Area to Suburban Center (approximately 4.9 acres);
- General Plan Amendment for addition of Policy LU 8.2.8 and modification of Policies ER 4.1.1 and ER 4.2.2 in the *Sacramento 2030 General Plan* in order to allow for the project's proposed Urban Farm use;
- Prezone of approximately 29.5 acres to SPD-PUD;
- Rezone of approximately 189.1 acres of M-2S-SWR and approximately 13.9 acres of M-2S-R-SWR to Single Family Residential (SFR-SPD-PUD), Multi-Family Residential (MFR-SPD-PUD), Shopping Center (SC-SPD-PUD), Parks/Open Space (OSR-SPD-PUD);
- Large Lot Tentative Subdivision Map;
- Tentative Subdivision Map and associated Subdivision Modifications (as detailed on the Tentative Map);
- PUD Establishment;
- Inclusionary Housing Plan;
- Reorganization/Annexation to City of Sacramento and Detachment from Sacramento Metropolitan Fire Department and Cordova Recreation and Park District;
- Bikeway Master Plan amendment to amend the Bikeway Master Plan to include the Aspen 1-New Brighton Trails Plan; and
- Tax Exchange Agreement between the City and the County.

Figure 3-10
Preliminary Off-Site Drainage Plan and Retention Basin



The proposed project would require the following additional City of Sacramento approvals:

- Development Agreement;
- Special Permits for non-residential development in the PUD;
- Acquisition of right-of-way and easements;
- Tree Removal Permit;
- Grading Permit; and
- Building Permits.

The following are actions required by other agencies:

- LAFCo approval of Reorganization (including annexation to the City of Sacramento and detachment from Sacramento Metro Fire Department and Cordova Recreation and Park District);
- NPDES general construction stormwater permit from the U.S. Environmental Protection Agency;
- Caltrans Encroachment Permit;
- Public Utilities Commission (PUC) approval of a service area boundary adjustment for the California American Water Company; and
- Tax Exchange Agreement (Board of Supervisors approval).

General Plan Amendment

As shown in Figure 3-11, a General Plan Amendment is required to redesignate approximately 29.5 acres in the eastern portion of the site from Special Study Area to Traditional Neighborhood Medium (8-21 du/ac) and Suburban Center (15-36 du/ac with a FAR of 0.25-2.0). The remaining approximately 203 acres of the site would retain the designations of Traditional Neighborhood Medium (8-21 du/ac) and Suburban Center (15-36 du/ac with a FAR of 0.25-2.0).

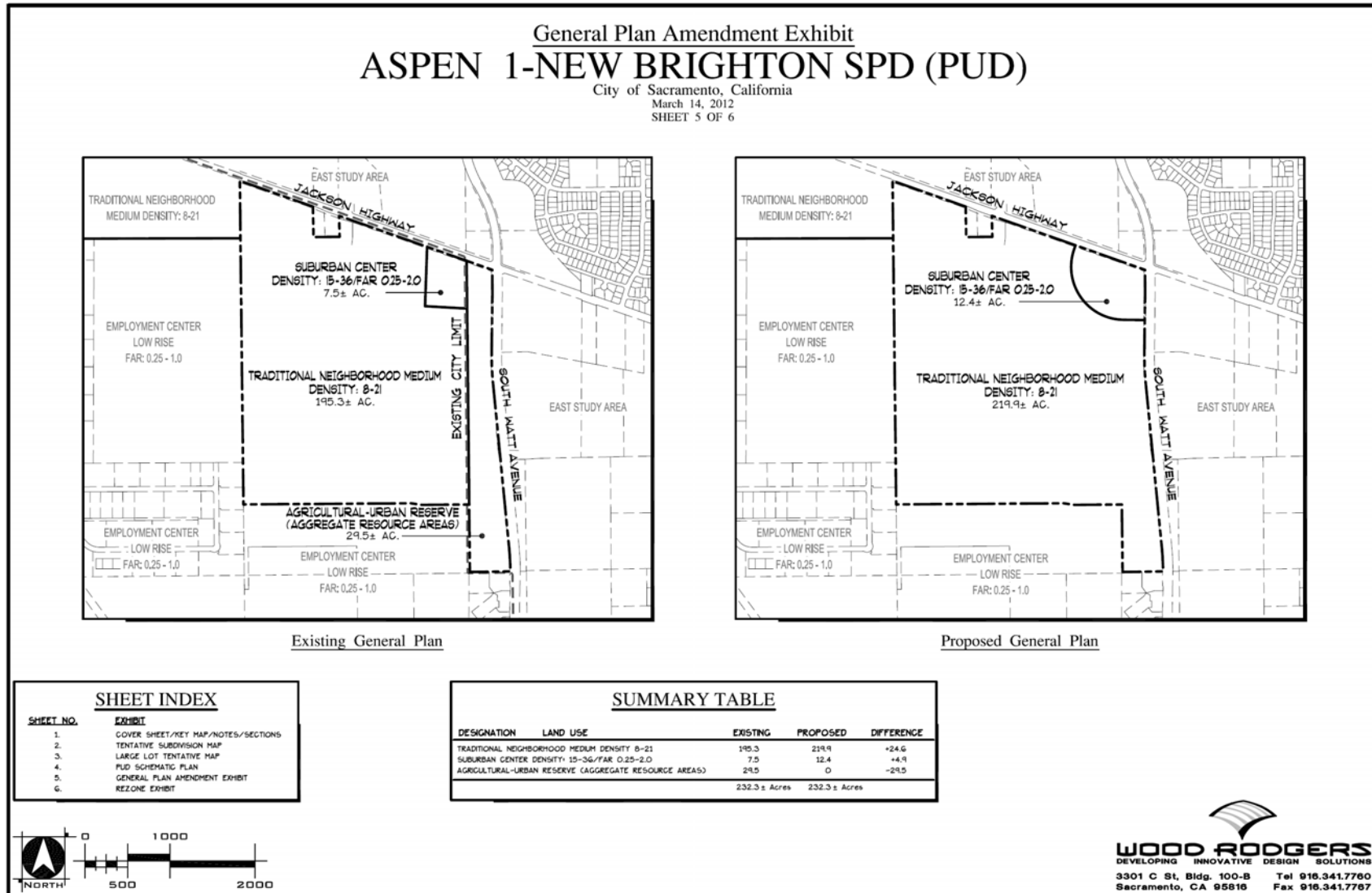
In addition, a General Plan Amendment is proposed to adjust the policy language in the *Sacramento 2030 General Plan* to further support the project's proposed Urban Farm use. A new policy would be added to the Land Use Element as follows:

- LU 8.2.8 Urban Farms. The City shall support existing urban farms and encourage the development of additional urban farms that are designed appropriately to fit within the urban fabric and provide residents with easy access to fresh, local food products.

The following policies of the Environmental Resources Element Agriculture Section of the General Plan would be modified as follows, where the proposed changes are indicated by double-underlines:

- ER 4.1.1 Locally Grown and Organic Foods. The City shall provide venues for urban farms and farmer's markets, particularly in areas that lack access to fresh and healthy foods, and encourage serving locally grown and organic foods at City public facilities.

Figure 3-11
General Plan Amendment Exhibit



ER4.2.2 Urban Farms, Edible Landscape and Community and Rooftop Gardens. The City shall promote urban agriculture by supporting urban farms, edible landscapes and community and rooftop gardens and recognize their value in providing fresh food in urban areas in addition to their recreational, community building, landscaping and educational value.

Rezone and Prezone

As shown in Figure 3-12, a rezone is required to redesignate the site from Heavy Industrial (M-2S-SWR and M-2S-R-SWR) to Single Family Residential (R-1A SPD [PUD]), Multi-Family Residential/Mixed-Use (RMX SPD [PUD]), Shopping Center (SC SPD [PUD]), Parks/Open Space (A-OS SPD [PUD]), and Urban Farm (A SPD [PUD]). The prezone of the 29.5 acres located outside of the City of Sacramento, which is currently zoned Heavy Industrial (M-2[SM]) and Industrial Reserve Surface Mining Combining Zone (IR-SM), is required in order to establish City zoning for the project site, which would be effective upon annexation approval by LAFCo.

Special Planning District

The Aspen 1-New Brighton Special Planning District (SPD) would be established, including allowed uses and development standards. The SPD establishes procedures to implement the policies, development standards, and design guidelines of the project and is the primary policy and regulatory document used to guide development of properties within the project site.

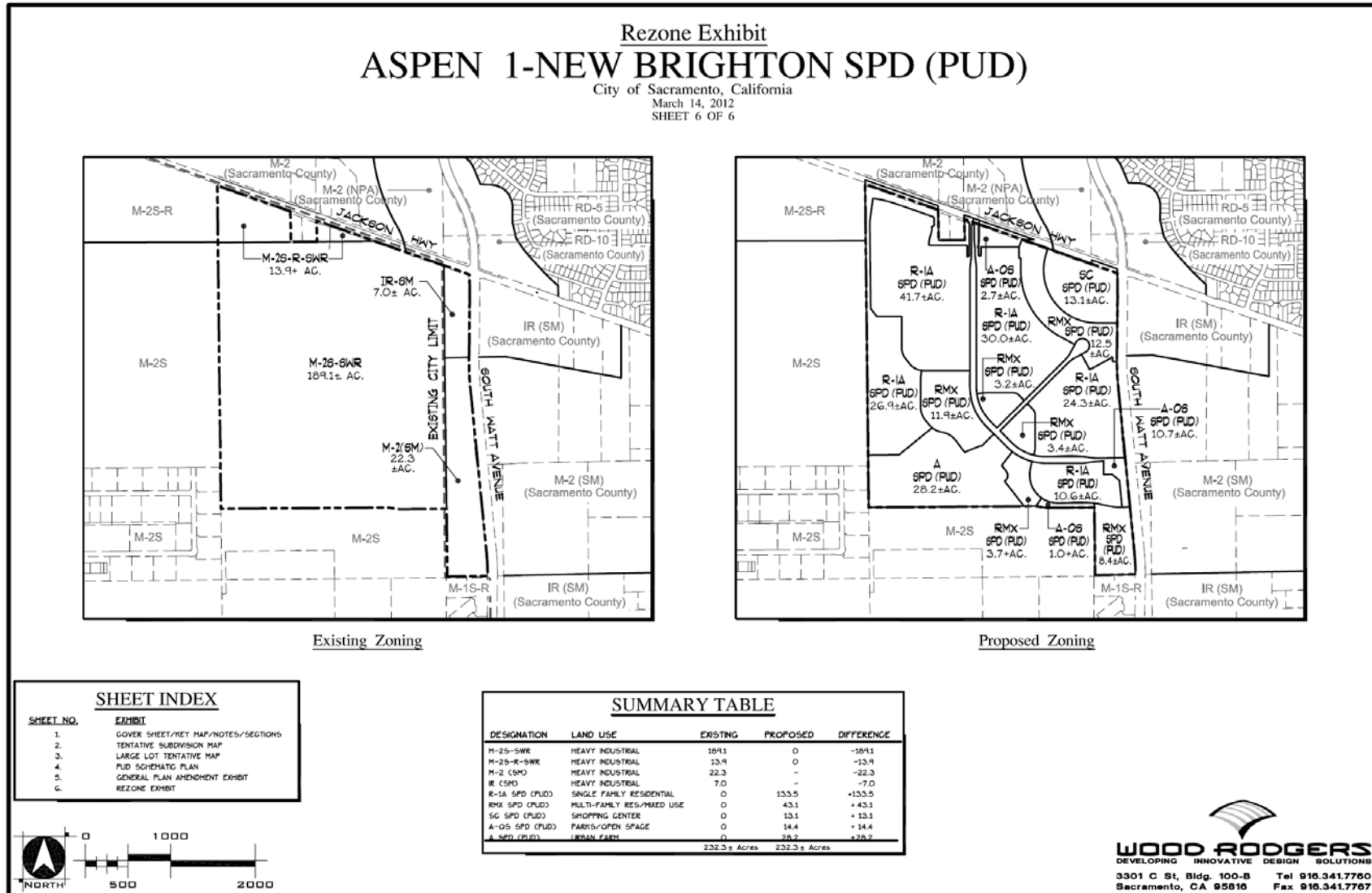
Planned Unit Development

The *Draft New Brighton PUD Guidelines*² would be established to set out the land plan and design standards for the community. The *Draft New Brighton PUD Guidelines* include the following topics as related to the proposed project: community framework; parks, recreation and open space; landscape design; circulation; residential neighborhoods; and commercial centers. Approval of a PUD requires a minimum of a Plan Review for new development within the proposed project area. The proposed PUD would consist of a mixture of land uses including single-family and multi-family residential, commercial, farming and recreational-based land uses.

Large Lot Tentative Map

The Large Lot Tentative Map is proposed in order to subdivide the approximately 232-acre site into 24 master parcels for commercial and residential development consistent with the PUD.

Figure 3-12
 Rezone Exhibit



Tentative Subdivision Map and Subdivision Map Modifications

The Tentative Map includes a request to subdivide the 232-acre site into 535 lots. The subdivision modifications that are being requested as part of the proposed project are shown on the Tentative Subdivision Map (See Figure 3-4). The subdivision modifications include the following:

- Intersection spacing at 111 feet to allow blocks and Streets 4 and 6 to align with park;
- Cul-de-sac islands at either end of Aspen Promenade (radius of approximately 103 feet);
- Non-standard intersection and traffic circle with a six-way stop for traffic calming and better pedestrian connection between four corners;
- Centerline radius of 100 feet for consistent grid layout; and
- Alleys that allow "front-on" units to provide variety and avoid driveways.

In addition, pages 5-12 and 5-13 of the *Draft New Brighton PUD Guidelines* outline requested alternative street standards necessary to implement the LID features of the project.

Reorganization

The applicant's request for an amendment to the City of Sacramento SOI for approximately 34 gross acres of land to be included within the SOI was approved by LAFCo on April 1, 2009 (Resolution No. LAFCo 2009-02-0401-05-08). The project would require the LAFCo approval of reorganization of the project site. Reorganization would consist of detachment of the site from the Sacramento Metro Fire Department and the Cordova Recreation and Park District, as well as annexation of a portion of the project site to the City of Sacramento.

It should be noted that reorganization proceedings would be under the purview of LAFCo, thus LAFCo would be a Responsible Agency under the California Environmental Quality Act (CEQA) and would rely on this EIR in considering LAFCo actions with respect to the project. Approval of any proposed reorganization would be at the discretion of LAFCo, which has the authority to approve, modify and approve, or deny any such request.

This EIR includes a Reorganization Impacts chapter, which has been included in order to allow LAFCo to utilize the chapter for their review of the proposed annexation. The chapter includes an analysis of the existing setting, identification of the thresholds of significance, identification of impacts, and the development of mitigation measures and monitoring strategies. In addition, the chapter identifies potential cumulative impacts. The impact discussions are based upon the Sacramento LAFCo Policy, Standards and Procedures Manual. In addition, the chapter includes the environmental justice implications of the project (i.e., the extent to which the proposal will promote environmental justice – the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services), consistency with adopted regional plans, such as the SACOG Blueprint and MTP, and consistency with the SOI special conditions.

Inclusionary Housing Plan

In order to comply with the City's affordable housing ordinance, an Inclusionary Housing Plan is required for the project. The Inclusionary Housing Plan is anticipated to include the provision of a mixture of multi-family for rent housing, as well as the provision of secondary units to meet the

requirements of the City affordable housing ordinance. The Inclusionary Housing Plan will be submitted by the project applicant after the completion of this Draft EIR.

2010 City/County Bikeway Master Plan Amendment

An amendment to the 2010 City/County Bikeway Master Plan is required in order to include the Aspen 1-New Brighton Trails Plan in the Master Plan document and maps.

Endnotes

¹ Stonebridge Properties, LLC. *Draft New Brighton PUD Guidelines*. April 2011.

² Ibid.

4. LAND USE, POPULATION, AND HOUSING

4

LAND USE, POPULATION, AND HOUSING

4.0 INTRODUCTION

The Land Use, Population, and Housing chapter of the EIR is intended to provide the reader with information regarding current General Plan land use and zoning designations, as well as land use policies in the City of Sacramento and in the vicinity of the proposed project. In addition, the chapter includes a comparison of the proposed project's predicted population increase to the planned population for the site in the City's General Plan, in order to determine if the proposed project would induce substantial growth that is inconsistent with the approved land use plan for the area. Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines states, "[...] the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans."

The Aspen 1-New Brighton project (proposed project) is analyzed in this chapter for consistencies and/or inconsistencies with the *Sacramento 2030 General Plan Draft Master EIR (MEIR)*,¹ the *Sacramento 2030 General Plan*,² and the City's Comprehensive Zoning Ordinance.³

Pertinent comments received in response to the original Notice of Preparation (NOP) and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Concerns expressed in comment letters on the NOP related to the compatibility of the proposed project with adjacent uses are addressed in the Consistency Analysis below.

4.1 EXISTING ENVIRONMENTAL SETTING

The following provides the existing land uses on the project site as well as the surrounding land uses designations, zoning, population and housing.

Existing Land Uses

The proposed project site consists of approximately 232 acres located at the southwest corner of Jackson Highway and South Watt Avenue in the City of Sacramento. A small portion of the project site is located outside of the city limits, within unincorporated Sacramento County (See Figure 3-2 in Chapter 3, Project Description, of this Draft EIR).

The proposed project site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins plant. Mining on the project site was completed in the late 1990s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins plant, and an electrical transmission line that transects the site in a northwesterly direction. The conveyor belt system utilizes a series of tunnel crossings under Jackson Highway and South Watt Avenue, which are proposed to be incorporated into the overall drainage system for the project. Due to the former mining activities, topography on the site is varied, and vegetation is limited. Existing trees are also limited, with the exception of some remnant Heritage Trees (See

Chapter 5.2, Biological Resources, of this Draft EIR for a discussion of potential impacts to Heritage Trees). Structures on-site include an existing corporation yard in the northwest corner of the site and metal shed in the northeast portion of the site. Prior to development all structures would be removed.

Uses surrounding the project site include the Teichert Perkins plant to the north (an active sand and gravel processing and sales facility), the Teichert Aspen 2 property to the east (a former mine site similar to the project site), the L and D Landfill to the south (a Class III facility limited to commercial waste and recycling) as well as Fruitridge Road, and the former Florin Perkins Landfill to the west and Florin Perkins Road (See Figure 3-2 in Chapter 3, Project Description, of this Draft EIR). In addition, a Sacramento Regional County Sanitation District pump station is located on the eastern boundary of the project site, west of South Watt Avenue, and two residences are located north of the site and south of Jackson Highway.

The project site is identified by the following Sacramento County Assessor's Parcel Numbers (APNs): 078-0202-007, -008, -009, -010, and -013; 063-0014-002 and -006; 063-0053-001; 061-0150-003, -004, -015, -016, -027, and -028; and 061-0180-003, -017, and -025.

Sacramento 2030 General Plan Land Use Designations

The *Sacramento 2030 General Plan* designates the project site Traditional Neighborhood Medium (195.3 acres), Suburban Center (7.5 acres), and Special Study Area (29.5 acres) (See Figure 4-1).

Traditional Neighborhood Medium

This designation provides for higher intensity medium-density housing and neighborhood support uses including the following:

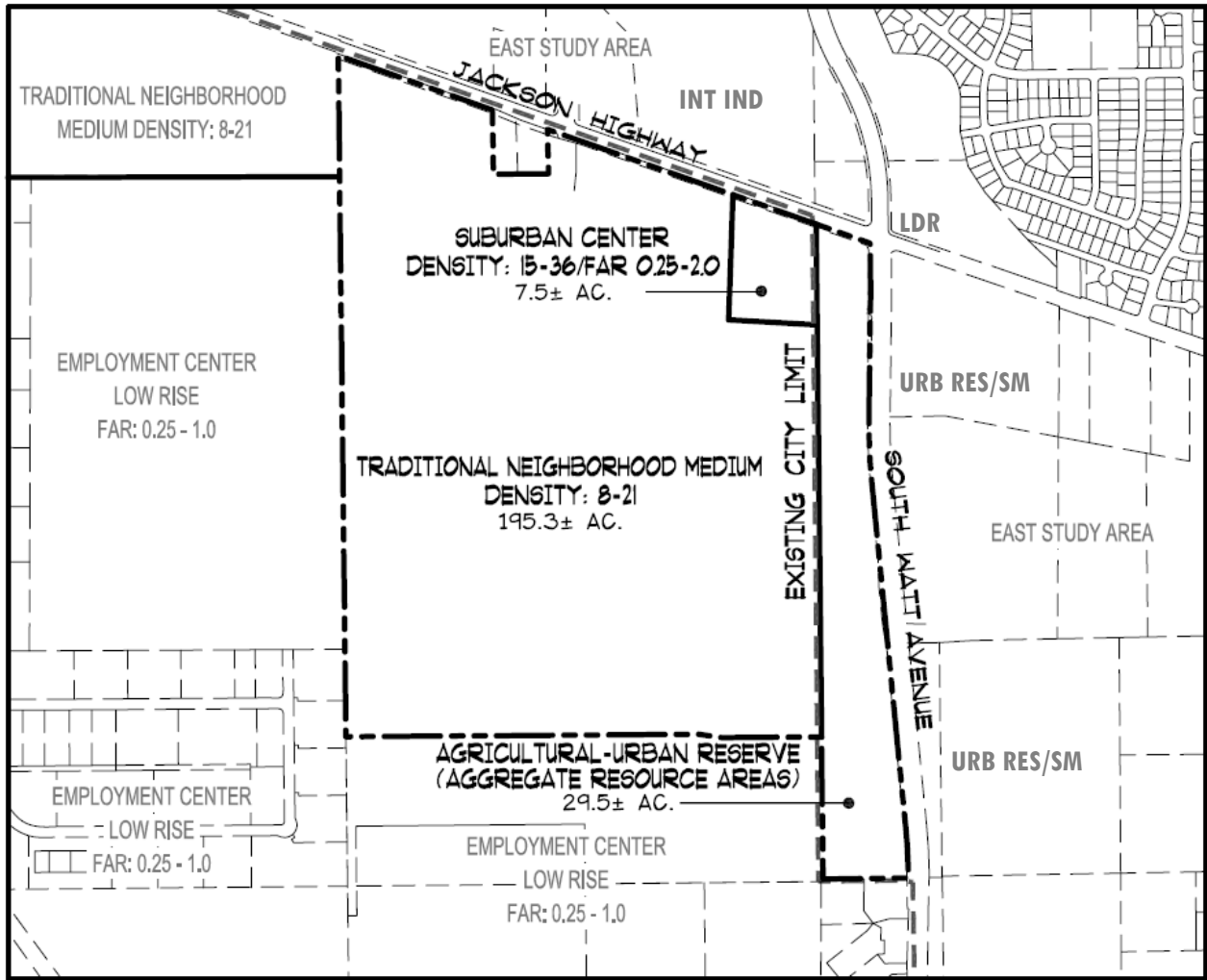
- Small-lot single-family dwellings;
- Small-lot single-family attached dwellings (e.g., duplexes, triplexes, townhomes);
- Accessory second units;
- Multifamily dwellings (e.g., apartments and condominiums);
- Limited neighborhood-serving commercial on lots two acres or less; and
- Compatible public, quasi-public, and special uses.

Suburban Center

This designation provides for predominantly nonresidential, lower intensity single-use commercial development or horizontal and vertical mixed-use development that includes the following:

- Retail, service, office, and/or residential uses;
- Central public gathering places; and
- Compatible public, quasi-public, and special uses.

**Figure 4-1
 Existing City of Sacramento General Plan Land Use Designations**



DESIGNATION	LAND USE	EXISTING
	TRADITIONAL NEIGHBORHOOD MEDIUM DENSITY 8-21	195.3
	SUBURBAN CENTER DENSITY: 15-36/FAR 0.25-2.0	7.5
	AGRICULTURAL-URBAN RESERVE (AGGREGATE RESOURCE AREAS)	29.5
		232.3 ± Acres

Special Study Area

The Special Study Area's designation is applied to potential annexation areas that may become part of the City in the future after additional studies have identified the fiscal and service delivery implications on City functions.

Sacramento County General Plan Land Use Designations

Approximately 29.5 acres of the eastern portion of the project site is located within the unincorporated portion of the Sacramento County. The *Sacramento County General Plan* land use designations for the 29.5-acre portion of the site within Sacramento County are Agricultural-Urban Reserve – Aggregate Resource Area (URB RES – AGA) (16.5 acres) and Intensive Industrial (INT IND) (13.0 acres).

Agricultural-Urban Reserve

The Agricultural-Urban Reserve designation identifies areas for urban expansion after the 20-year planning period. One large area given this designation is reserved for aggregate resource mining. These areas will be evaluated for their development potential when the level of growth in the planned urban areas justifies their need, mining is completed, and the area is restored. Because most of this land is intended for mining it will receive no additional urban services (e.g., water and sewer systems) above the level existing when the land was first designated. Further, land divisions incompatible with orderly and well-planned future urban development are not permitted.

Intensive Industrial

This land use designation allows activities that require large areas of land and do not require urban levels of services. Intensive Industrial areas are not located within the urban portion of the County and do not need urban services. An urban level of public infrastructure and service will not be extended during the planning period. Floor Area Ratios range from 0.15 to 0.40.

Aggregate Resource Area Combining District

The purpose of the Aggregate Resource Area combining designation is to identify areas with valuable mineral resources such as sand, gravel, clay, aggregate, and gold deposits with potential for future mining activity. The designation gives full consideration to these resources during the land use planning process when balanced against other conflicting uses that may preclude mining such as biological and environmental constraints or proposed urban land uses. It is also intended to protect mineral resource areas from on-site and adjacent incompatible land uses that may inhibit the future of the mining of the area. While surface mining is an industrial activity, its locational requirements are dependent upon the physical location of mineral resources. Specific policies in the Conservation Element apply to these areas that encourage the conservation and efficient use of mineral resources, while ensuring the maximum feasible protection of the environment. This land use designation is combined with designations such as Industrial Extensive, Agricultural-Urban Reserve, Agricultural Cropland, and General Agriculture (20 and 80 acres). These areas may be ultimately reclaimed for residential, industrial, or other uses.

City of Sacramento Zoning

The purpose of the City's Zoning Ordinance is to regulate the use of land, buildings, or other structures for residences, commerce, industry, and other uses required by the community. Additionally, the Zoning Ordinance regulates the location, height, and size of buildings or structures, yards, courts, and open spaces, amount of building coverage permitted in each zone, and population density. The Ordinance also divides the City of Sacramento into zones of such shape, size, and number best suited to carry out these regulations, provide for their enforcement, and ensure the provision of adequate open space for aesthetic and environmental amenities. The project site currently has a zoning designation of Heavy Industrial (M-2S-SWR and M-2S-R-SWR) (See Figure 4-2). The City of Sacramento Zoning Code (Title 17) defines this zoning designation as follows:

Heavy Industrial

This zone permits the manufacture or treatment of goods from raw materials. Like the M-1S zone, the M-2S zone has certain development standards designed to obtain industrial park developments that are in keeping with the modern concept of attractive, landscaped industrial plants. It should be noted that the Solid Waste Restricted (SWR) overlay zone is intended to restrict the establishment or expansion of solid waste facilities in the areas where the zone is applied. The SWR overlay zone is also intended to stimulate the establishment of new solid waste facilities near new growth areas, so waste disposal services can more efficiently serve the increasing needs of the population now and into the future without further impacting areas of the city that already contain an over-concentration of such facilities.

Sacramento County Zoning

Approximately 29.5 acres of the eastern portion of the project site is located within the unincorporated portion of the Sacramento County. The Sacramento County Zoning designations for the 29.5-acre portion of the site within Sacramento County are Heavy Industrial (M-2[SM]) and Industrial Reserve Surface Mining Combining Zone (IR-SM).

Heavy Industrial (M-2)

The Heavy Industrial zone provides for the more objectionable industrial uses.

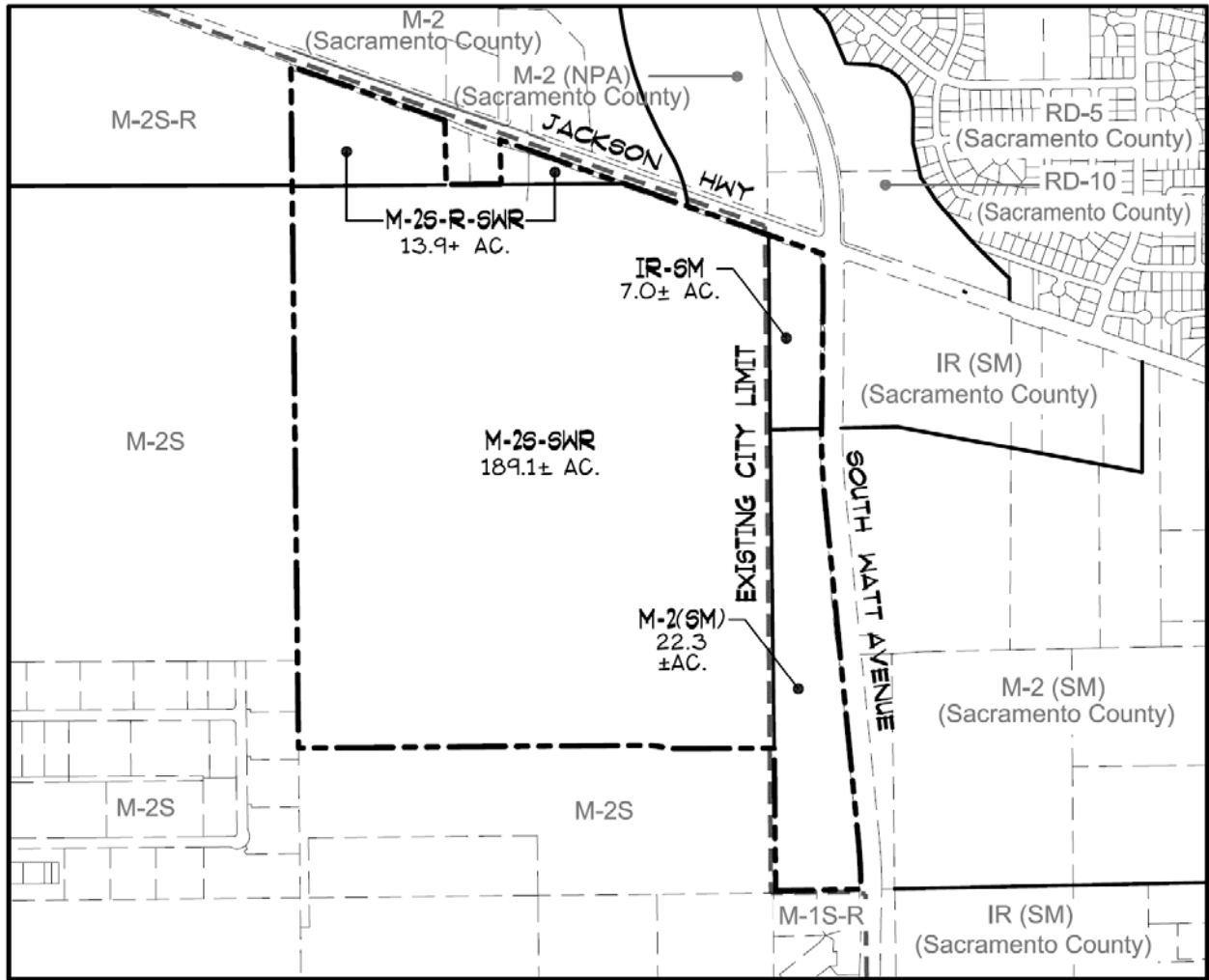
Industrial Reserve (IR)

The Industrial Reserve zone is essentially an agricultural zone with a minimum parcel size of 20 acres. In this zone many uses including single family residential require a use permit. Future industrial use is foreseen as appropriate in areas where this zone is applied subject to further review and rezoning.

Surface Mining (SM) Combining

The Surface Mining (SM) combining zone is combined with the basic zone in areas which have been identified as valuable mineral resource areas, to protect these resources from preclusive and incompatible land uses. This combining zone is also applied to surface mining areas to protect the environment and the public health, safety, welfare, and property values of residents in the area.

**Figure 4-2
 City of Sacramento Zoning Designations**



DESIGNATION	LAND USE	EXISTING
M-2S-SWR	HEAVY INDUSTRIAL	189.1
M-2S-R-SWR	HEAVY INDUSTRIAL	13.9
M-2 (SM)	HEAVY INDUSTRIAL	22.3
IR (SM)	HEAVY INDUSTRIAL	7.0
R-1A SPD (PUD)	SINGLE FAMILY RESIDENTIAL	0
RMX SPD (PUD)	MULTI-FAMILY RES/MIXED USE	0
SC SPD (PUD)	SHOPPING CENTER	0
A-OS SPD (PUD)	PARKS/OPEN SPACE	0
A SPD (PUD)	URBAN FARM	0
		232.3 ± Acres

Adjacent Land Use Designations and Zoning

Surrounding City of Sacramento General Plan Land Use Designations

The surrounding City of Sacramento General Plan Land Use designations include Traditional Neighborhood Medium and Employment Center Low Rise.

Employment Center Low Rise

This designation provides for employment generating uses that generally do not produce loud noise or noxious odor including the following:

- Industrial or manufacturing that occurs entirely within an enclosed building or an enclosed outdoor area with appropriately landscaped setbacks
- Office flex-space (i.e., industrial structures converting to office or research and design uses)
- Residential and commercial flexspace (i.e., industrial structures converting to residential or commercial uses) in areas expected to transition to urban development
- Office uses
- Retail and service uses that provide support to employees
- Compatible public, quasi-public, and special uses

Surrounding City of Sacramento Zoning

The surrounding City of Sacramento Zoning designations include Heavy Industrial M-2S-R and Light Industrial Zone (M-1S-R and M-1).

Light Industrial Zone, M-1

This zone permits most fabricating activities, with the exception of heavy manufacturing and the processing of raw materials. In addition, regulations are provided in the M-1(S) zone to provide more attractive and uncrowded developments.

Surrounding Sacramento County General Plan Land Use Designations

The surrounding Sacramento County General Plan Land Use designations include Intensive Industrial, Agricultural-Urban Reserve, Agricultural-Urban Reserve - Aggregate Resource Area, and Low Density Residential (LDR).

Low Density Residential

This designation provides for areas of predominantly single family housing with some attached housing units. It allows urban densities between one and twelve dwelling units per acre, resulting in population densities ranging from approximately 2.5 to 30 persons per acre. Typical low density development includes detached single family homes, duplexes, triplexes, fourplexes, townhouses, lower density condominiums, cluster housing, and mobile home parks.

Surrounding Sacramento County Zoning

The surrounding Sacramento County Zoning Designations include Heavy Industrial – Surface Mining (M2 [SM]), Heavy Industrial (M2), Heavy Industrial – Neighborhood Preservation Area (M2 [NPA]), Residential Density 10 (RD-10), Residential Density 5 (RD-5), Industrial Reserve – Surface Mining (IR [SM]), and Light Industrial Zone – Surface Mining (M-1 [SM]).

Light Industrial Zone, M-1

The Light Industrial zone is intended to provide for the development of industrial uses which include fabrication, manufacturing, assembly, or processing of materials that for the most part are already in processed form and which do not in their maintenance, assembly, manufacture, or plant operation create smoke, gas, odor, dust, sound or other objectionable influences which might be obnoxious to persons conducting business or residing in this or any other zone. Many of the uses permitted are required to be carried out completely within an enclosed building or behind an enclosed solid wood or fenced area.

Residential Density 10, RD-10

This is the most common duplex zone, although other multiple family uses are permitted with a use permit. A maximum of ten (10) dwelling units per net acre of land is allowed. Single family interior lots require 4,000 net square feet and single family corner lots require 5,200 net square feet. Minimum lot sizes for a duplex on corner lots is 7,200 net square feet and 6,200 net square feet for interior lots. The minimum lot size for multiple family projects is 5,200 net square feet for interior lots and 6,200 net square feet for corner lots.

Residential Density 5, RD-5

This is the most widely occurring single family residential zone. Where public water supply and public sewerage facilities are both in use, 5,200 net square feet is the required minimum lot size for interior lots, with corner lots being 6,200 net square feet. Duplexes are permitted with a minimum lot size of 8,500 net square feet on corner lots and subject to the issuance of a use permit on interior lots of this size. Incidental agricultural uses are permitted on lots 20,000 net square feet or larger. Certain types of businesses and professional office uses when in scale and oriented to the neighborhood, as well as convenience centers, are allowed subject to the issuance of a use permit.

Neighborhood Preservation Area (NPA) Combining Zone

This zone is for areas having unique architectural, environmental, social or other characteristics existing which current property owners wish to maintain. New development in these areas should meet conditions which existing standards of the basic zone may not address.

Housing and Population

Current Population

According to the California Department of Finance, the population of the City of Sacramento as of January 1, 2010 was estimated to be 477,284. As can be seen in Table 4-1, the population of

the City of Sacramento has increased by over 79,178 residents in the past 10 years; however, the growth has moderated over the past five years.

As of January 1	Estimated Population
2010	477,284
2009	472,502
2008	466,033
2007	458,137
2006	449,791
2005	444,599
2004	436,170
2003	427,233
2002	418,480
2001	406,163
2000	398,016

Source: California Department of Finance, E-5 Population Estimates for Cities, Counties and the State, 2001-20010 with 2000 Benchmark, www.dof.ca.gov, accessed October 2010.

Growth Rates

As noted in the City of Sacramento 2008-2013 Housing Element, the Sacramento Area Council of Governments (SACOG) has made population projections for the City of Sacramento. SACOG has projected future population for the jurisdictional boundaries of the City of Sacramento, as well as for the subregional study area for the City, which consists of Sacramento’s Sphere of Influence (SOI). The horizon for the population projections is to the Year 2025.

Projections and Growth Rates

The SACOG projections are for defined jurisdictional boundaries as of the year 2007. Fixed boundaries are used in order to provide a constant frame of reference, and their use does not imply any assumption about how cities will incorporate surrounding areas during the forecast period. Table 4-2 lists the population projections made by SACOG for the City of Sacramento jurisdictional boundaries.

The population growth rate that would occur in the City of Sacramento over the next 15 years was estimated. It should be noted that housing market conditions have changed dramatically since SACOG prepared projections in 2007, and the City anticipates much slower population growth.

	2000	2010	2010-2025	2025
Population	407,178	477,284	51,596	528,880
Growth Rate		1.7%	10.8%	1.1%

Source: California Department of Finance, E-5 Population Estimates for Cities, Counties and the State, 2001-20010 with 2000 Benchmark, www.dof.ca.gov, accessed October 2010., SACOG 2007.

Current Housing

The City of Sacramento currently contains an estimated 195,446 housing units, of which 127,660 are single-family units, 49,450 are multi-family units, and 3,686 are mobile home units. Table 4-3 summarizes the number of housing units per housing type within the City of Sacramento, as of January 1, 2010.

Unit Type	Number of Units
Single Family	195,446
2-4	16,277
5+	47,823
Mobile Homes	3,686
Total	195,443
<i>Source: California Department of Finance, E-5 City/County Population and Housing Estimates, 2001-2010; accessed on www.dof.ca.gov; October 2010.</i>	

Housing Tenure

In 2010, 57.2 percent of the housing stock was owner-occupied in the City of Sacramento, 39.0 percent of the stock was renter-occupied, and 3.8 percent was vacant.

The California Department of Finance identified a 5.72 percent vacancy rate in Sacramento, as of 2010. Vacancy rates in the four to six percent range generally indicate a healthy housing market where new housing is being absorbed efficiently by the market.

Future Housing Projections

The SACOG Regional Housing Needs Allocation (RHNA) for the City of Sacramento from January 2006 to June 2013 is 17,649 dwelling units.

Unit Type	Number of Units
Very Low	2,472
Low	2,582
Moderate	3,683
Above Moderat	8,991
Total	17,649
<i>Source: SACOG Regional Housing Needs Allocation (RHNA) February 2008.</i>	

Household Income

Table 4-5 shows the projected incomes of households in Sacramento in 2010. The median household income in 2010 was \$48,839 and the average household income was \$60,252.

Households	Sacramento
Less than \$15,000	24,793
\$15,000 to \$24,999	20,300
\$25,000 to \$34,999	17,661
\$35,000 to \$49,999	30,634
\$50,000 to \$74,999	41,308
\$75,000 to \$99,999	23,517
\$100,000 to \$149,999	16,215
\$150,000 to \$199,999	4,507
\$200,000 or more	3,745
Median Household Income (dollars)	\$48,839
Average Household Income (dollars)	\$60,252

Source: ESRI, 2011.

Very-low-income households are defined as earning a gross income of less than 50 percent of the median income of Sacramento County (as determined by the U.S. Department of Housing and Urban Development). Low-income households are defined as earning a gross income of more than 50 percent and less than 80 percent of the median income for Sacramento County. Moderate-income households are defined as earning a gross income of more than 80 percent and less than 121 percent of the median income for Sacramento County. Therefore, a moderate-income household in Sacramento County is one that earns between \$39,071 and \$58,607 per year, which would include approximately 20.0 percent of the households in the City of Sacramento.

Employment

The City of Sacramento unemployment rate fluctuated minimally from 2000 through 2011. However, starting in 2008, the unemployment rate dramatically increased due to slowing of growth and an eventual recession, mainly because of the decline of the housing market (See Table 4-6).

Year	City of Sacramento			Sacramento County		
	Employment	Unemployment	Rate	Employment	Unemployment	Rate
2000	180,932	9,807	5.1%	582,379	26,382	4.3%
2001	185,295	10,509	5.4%	596,422	28,271	4.5%
2002	189,203	13,584	6.7%	609,002	36,541	5.7%
2003	192,091	14,378	7.0%	618,295	38,649	5.9%
2004	193,988	13,842	6.7%	624,403	37,238	5.6%
2005	196,500	12,310	5.9%	632,488	33,117	5.0%
2006	198,402	11,844	5.6%	638,609	31,861	4.8%
2007	198,974	13,628	6.4%	640,452	36,662	5.4%
2008	196,147	18,067	8.4%	631,351	48,603	7.1%
2009	187,697	28,579	13.2%	604,154	76,882	11.3%
2010	182,785	32,065	14.9%	588,342	86,257	12.8%
2011 ¹	179,087	30,985	14.7%	576,438	83,353	12.6%

¹ As of March 2011

Source: <http://www.labormarketinfo.edd.ca.gov>.

Jobs-to-Housing Ratio

The jobs-to-housing ratio of a particular area is a measure of the match between local employment opportunities and the availability of housing. According to the Sacramento MEIR the 2005 jobs-to-household ratio for the City of Sacramento was 1.89 (339,000 / 179,000 = 1.89) and the 2035 jobs-to-household ratio will be 1.33 (975,662 / 732,678 = 1.33).

4.2 REGULATORY BACKGROUND

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The following policies from the *Sacramento 2030 General Plan* are applicable to land use, housing, and population:

Land Use and Urban Design Element

Growth and Change

- | | |
|------------------|---|
| Goal 1.1 | Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure. |
| Policy LU 1.1.1 | Regional Leadership. The City shall be the regional leader in sustainable development and encourage compact, higher-density development that conserves land resources, protects habitat, supports transit, reduces vehicle trips, improves air quality, conserves energy and water, and diversifies Sacramento's housing stock. |
| Policy LU 1.1.8 | Annexation Prior to City Services. Prior to the provision of City services to new unincorporated areas, the City shall require those unincorporated properties be annexed into the city, or that a conditional service agreement be executed agreeing to annex when deemed appropriate by the City. |
| Policy LU 1.1.9 | Balancing Infill and New Growth. The City shall maintain a balanced growth management approach by encouraging infill development within the existing Policy Area where City services are in place, and by phasing city expansion into Special Study Areas where appropriate. |
| Policy LU 1.1.10 | New Growth. The City shall continue to plan for future expansion and new growth in Special Study Areas to ensure that regional |

growth is adequately accommodated and served by the City, particularly when it cannot be absorbed in infill areas.

Citywide Land Use and Urban Design

Goal 2.1 City of Neighborhoods. Maintain a city of diverse, distinct, and well-structured neighborhoods that meet the community's needs for complete, sustainable, and high-quality living environments, from the historic downtown core to well-integrated new growth areas.

Policy LU 2.1.1 Neighborhoods as a Basic Unit. Recognizing that Sacramento's neighborhoods are the basic living environments that make-up the city's urban fabric, the City shall strive through its planning and urban design to preserve and enhance their distinctiveness, identity, and livability from the downtown core to well integrated new growth areas.

Policy 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.

Policy LU 2.1.4 General Plan Density Regulations for Mixed-Density Development Projects. Where a developer proposes a multi-parcel development project with more than one residential density or FAR, the applicable density or FAR range of the General Plan Land Use Designation shall be applied to the net developable area of the entire project site rather than individual parcels within the site. Some parcels may be zoned for densities/intensities that exceed the maximum allowed density/intensity of the project site's Land Use Designation, provided that the net density of the project as a whole is within the allowed range.

Policy LU 2.1.5 Neighborhood Centers. The City shall promote the development of strategically located (e.g., accessible to surrounding neighborhoods) mixed-use neighborhood centers that accommodate local-serving commercial, employment, and entertainment uses; provide diverse housing opportunities; are within walking distance of surrounding residents; and are efficiently served by transit.

Goal LU 2.3 City of Trees and Open Spaces. Maintain multi-functional "green infrastructure" consisting of natural areas, open space, urban forest, and parkland, which serves as a defining physical feature of Sacramento, provides visitors and residents with access to open space and recreation, and is designed for environmental sustainability.

- Policy LU 2.3.1 Multi-functional Green Infrastructure. The City shall strive to create a comprehensive and integrated system of parks, open space, and urban forests that frames and complements the city's urbanized areas.
- Goal LU 2.4 City of Distinctive and Memorable Places. Promote community design that produces a distinctive, high-quality built environment whose forms and character reflect Sacramento's unique historic, environmental, and architectural context, and create memorable places that enrich community life.
- Policy LU 2.4.1 Unique Sense of Place. The City shall promote quality site, architectural and landscape design that incorporates those qualities and characteristics that make Sacramento desirable and memorable including: walkable blocks, distinctive parks and open spaces, tree-lined streets, and varied architectural styles.
- Policy LU 2.4.2 Responsiveness to Context. The City shall require building design that respects and responds to the local context, including use of local materials where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.
- Goal LU 2.5 City Connected and Accessible. Promote the development of an urban pattern of well-connected, integrated, and accessible neighborhoods corridors, and centers.
- Policy LU 2.5.1 Connected Neighborhoods, Corridors, and Centers. The City shall require that new development, both infill and greenfield, maximizes connections and minimizes barriers between neighborhoods corridors, and centers within the city.
- Policy LU 2.5.2 Overcoming Barriers to Accessibility. The City shall strive to remove and minimize the effect of natural and manmade barriers to accessibility between and within existing neighborhoods corridors, and centers.
- Goal LU 2.6 City Sustained and Renewed. Promote sustainable development and land use practices in both new development and redevelopment that provide for the transformation of Sacramento into a sustainable urban city while preserving choices (e.g., where to live, work, and recreate) for future generations.
- Policy LU 2.6.1 Sustainable Development Patterns. The City shall promote compact development patterns, mixed use, and higher-development intensities that use land efficiently; reduce pollution and automobile dependence and the expenditure of energy and other resources; and facilitate walking, bicycling, and transit use.

- Policy LU 2.6.2 Redevelopment and Revitalization Strategies. The City shall employ a range of strategies to promote revitalization of distressed, under-utilized, and/or transitioning areas, including:
- Targeted public investments
 - Development incentives
 - Redevelopment assistance
 - Public-private partnerships
 - Revised development regulations and entitlement procedures
 - Implementation of City- or SHRA-sponsored studies and master plans
- Goal LU 2.8 City Fair and Equitable. Ensure fair and equitable access for all citizens to employment, housing, education, recreation, transportation, retail, and public services, including participation in public planning for the future.
- Policy LU 2.8.1 Equitable Distribution of Uses and Amenities. The City shall strive to ensure that desirable uses and neighborhood amenities are distributed equitably throughout the city.
- Policy LU 2.8.2 Public Facilities and Services. The City shall strive to equitably distribute public facilities, improvements, and services throughout the city, with priority given to remedying existing deficiencies in blighted or underserved neighborhoods.
- Policy LU 2.8.4 Housing Type Distribution. The City shall promote an equitable distribution of housing types for all income groups throughout the city and promote mixed-income developments rather than creating concentrations of below-market-rate housing in certain areas.
- Policy LU 2.8.5 Jobs Housing Balance. The City shall encourage a balance between job type, the workforce, and housing development to reduce the negative impacts of long commutes and provide a range of employment opportunities for all city residents.

Neighborhoods

- Goal LU 4.1 Neighborhoods. Promote the development and preservation of neighborhoods that provide a variety of housing types, densities, and designs and a mix of uses and services that address the diverse needs of Sacramento residents of all ages, socio-economic groups, and abilities.
- Policy LU 4.1.1 Mixed-Use Neighborhoods. The City shall require neighborhood design that incorporates a compatible and complementary mix of residential and nonresidential (e.g., retail, parks, schools) uses that address the basic daily needs of residents and employees.

- Policy LU 4.1.2 Neighborhood Amenities. The City shall encourage appropriately scaled community-supportive facilities and services within all neighborhoods to enhance neighborhood identity and provide convenient access within walking and biking distance of city residents.
- Policy LU 4.1.3 Walkable Neighborhoods. The City shall require the design and development of neighborhoods that are pedestrian friendly and include features such as short blocks, broad and well-appointed sidewalks (e.g., lighting, landscaping, adequate width), tree-shaded streets, buildings that define and are oriented to adjacent streets and public spaces, limited driveway curb cuts, paseos and pedestrian lanes, alleys, traffic-calming features, convenient pedestrian street crossings, and access to transit.
- Policy LU 4.1.4 Alley Access. The City shall encourage the use of well-designed and safe alleys to access individual parcels in neighborhoods in order to reduce the number of curb cuts, driveways, garage doors, and associated pedestrian/automobile conflicts along street frontages.
- Policy LU 4.1.5 Connecting Key Destinations. The City shall promote better connections by all travel modes between residential neighborhoods and key commercial, cultural, recreational, and other community-supportive destinations for all travel modes.
- Policy LU 4.1.6 Neighborhood Transitions. The City shall provide for appropriate transitions between different land use and urban form designations along the alignment of alleys or rear lot lines and along street centerlines, in order to maintain consistent scale, form, and character on both sides of public streetscapes.
- Policy LU 4.1.7 Connections to Open Space. The City shall ensure that new and existing neighborhoods contain a diverse mix of parks and open spaces that are connected by trails, bikeways, and other open space networks and are within easy walking distance of residents.
- Policy LU 4.1.8 Neighborhood Street Trees. The City shall encourage the strategic selection of street tree species to enhance neighborhood character and identity and preserve the health and diversity of the urban forest.
- Policy LU 4.1.9 Residential Diversity. The City shall avoid concentrations of single-use high-density multifamily residential uses (e.g., apartments and condominiums) in existing or new neighborhoods.
- Policy LU 4.1.10 Balanced Neighborhoods. The City shall require new major residential development to provide a balanced housing mix that includes a range of housing types and densities.

- Policy LU 4.1.11 Senior Housing Development. The City shall encourage the development of senior housing in neighborhoods that are accessible to public transit, commercial services, and health and community facilities.
- Policy LU 4.1.12 Family-Friendly Neighborhoods. The City shall promote the development of family-friendly neighborhoods throughout the city that provide housing that accommodates families of all sizes and provides safe and convenient access to schools, parks, and other family oriented amenities and services.
- Goal LU 4.3 Traditional Neighborhoods. Retain the pedestrian-scale, pre-automobile form, and lush urban forest that typifies traditional neighborhoods and contributes to their special sense of place.
- Policy LU 4.3.1 Traditional Neighborhood Protection. The City shall protect the pattern and character of Sacramento's unique traditional neighborhoods, including the streetgrid pattern, architectural styles, tree canopy, and access to public transit, neighborhood services and amenities.
- Goal 4.5 New Neighborhoods. Ensure that complete new neighborhoods embody the city's principles of Smart Growth and Sustainability.
- Policy LU 4.5.1 New Growth Neighborhoods. The City shall ensure that new residential growth areas include neighborhoods that maintain a mix of residential types and densities, and that the residential mix will provide appropriate transitional features that integrate the area with adjacent existing neighborhoods and development.
- Policy LU 4.5.2 Compact Neighborhoods. The City shall require developers to create new residential neighborhoods that are pedestrian and bicycle friendly, are accessible by transit, and make efficient use of land and infrastructure by being compact with higher average densities.
- Policy LU 4.5.3 Green Neighborhoods. The City shall encourage new development to build to a green neighborhood rating standard and apply for certification in a green neighborhood system such as LEED-ND (Leadership in Energy and Environmental Design-Neighborhood Development).
- Policy LU 4.5.4 New Neighborhood Core. The City shall require all parts of new neighborhoods be within ½-mile of a central gathering place that is located on a collector or minor arterial and that includes public space, shopping areas, access to transit, and community-supportive facilities and services.

- Policy LU 4.5.5 Traditional Grid. The City shall require all new neighborhoods to be designed with traditional grid block sizes ranging from 300 to 400 feet in length.
- Policy LU 4.5.6 Connections to Transit. The City shall require new neighborhoods to include transit stops that connect to and support a citywide transit system and are within a ½-mile walking distance of all dwellings.

Centers

- Goal LU 5.1 Centers. Promote the development throughout the city of distinct, well-designed mixed-use centers that are efficiently served by transit, provide higher-density, urban housing opportunities and serve as centers of civic, cultural, and economic life for Sacramento's neighborhoods and the region.
- Policy 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.
- Policy LU 5.1.2 Centers Served by Transit. The City shall promote the development of commercial mixed-use centers that are located on existing or planned transit stops in order to facilitate and take advantage of transit service, reduce vehicle trips, and enhance community access.
- Policy LU 5.1.3 Cultural and Entertainment Centers. The City shall actively support the development of cultural, education, and entertainment facilities and events in the city's centers to attract visitors and establish a unique identity for Sacramento.
- Policy LU 5.1.4 Major Retail and Office Development. The City shall work with developers to develop major regional commercial and office projects in centers throughout the city that provide shopping and jobs for all city residents.
- Policy LU 5.1.5 Vertical and Horizontal Mixed-Use. The City shall encourage and, where feasible, require the vertical and horizontal integration of uses within commercial centers and mixed-use centers, particularly residential and office uses over ground floor retail.
- Goal LU 5.3 Traditional Centers. Promote traditional centers where people can shop and socialize within walking distance of surrounding neighborhoods.
- Policy LU 5.3.1 Development Standards. The City shall continue to support development and operation of centers in traditional neighborhoods by providing flexibility in development standards, consistent with

public health and safety, in response to constraints inherent in retrofitting older structures and in creating infill development in established neighborhoods.

Housing Element

- | | |
|----------------|--|
| Goal H-1.1 | Develop and rehabilitate housing and neighborhoods to be environmentally sustainable. |
| Policy H-1.1.1 | The City shall promote sustainable housing practices that incorporate a “whole system” approach to siting, designing and constructing housing that is integrated into the building site, consume less energy, water, and other resources, and are healthier, safer, more comfortable, and durable. |
| Goal H-1.2 | Provide a variety of quality housing types to encourage neighborhood stability. |
| Policy H-1.2.1 | The City shall encourage the development and redevelopment of neighborhoods that include a variety of housing tenure, size and types, such as second units, carriage homes, lofts, live-work spaces, cottages, and manufactured/modular housing. |
| Policy H-1.2.2 | The City shall encourage a greater variety of housing types and sizes to diversify, yet maintain compatibility with, single family neighborhoods. |
| Policy H-1.2.4 | The City shall actively support and encourage mixed-use retail, employment and residential development around existing and future transit stations, centers and corridors. |
| Goal H-1.3 | Promote racial, economic, and demographic integration in new and existing neighborhoods |
| Policy H-1.3.1 | The City shall encourage economic and racial integration, fair housing opportunity and the elimination of discrimination. |
| Policy H-1.3.2 | The City shall consider the economic integration of neighborhoods when financing new multi-family affordable housing projects. |
| Policy H-1.3.4 | The City shall encourage a range of housing opportunities for all segments of the community as part of the community planning and implementation process for newly annexed, newly developing, re-use and intensification areas. |

City of Sacramento Mixed-Income Housing Ordinance

Section 17.190 of the City of Sacramento Zoning Code (“Mixed Income Housing”) is intended to provide that residential projects in new growth areas contain a defined percentage of housing affordable to low income and very low income households; to provide for a program of

incentives and local public subsidy to assist in this effort; and to implement the mixed income policies of the Housing Element of the City General Plan. The proposed project site is identified as a “new growth area” in the Mixed Income Housing Code (See Figure 4-3).

Section 17.190.030 (“Standard inclusionary housing component”) states that in new growth areas, ten (10) percent of the dwelling units shall be affordable to very low income households, and five (5) percent of the dwelling units shall be affordable to low income households. The inclusionary (“affordable”) units are to be visually compatible with the market rate units, and shall accommodate diverse family sizes by including a mix of studio, one-, two-, and three-bedroom units as determined by the planning director. Development of the inclusionary units is to proceed concurrently with that of the market rate units; however, the timing may be adjusted as necessary in order to account for different funding and financing environments, economies of scale, and infrastructure needs.

Sacramento LAFCo

Applicable Sacramento LAFCo goals, policies, and standards from the *Policy, Standards and Procedures Manual* are discussed in Chapter 6 of the Draft EIR, Reorganization.

4.3 LAND USE EVALUATION

Proposed Land Uses and Zoning

The proposed project includes 133.5 acres of land with a zoning designation of Single-Family Residential in the northwest, center, and southeast portions of the project site (including 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential) and 43.1 acres of land with a zoning designation of Multi-Family Residential/Mixed Use in the central and southern portions of the project site. The project would include the following additional uses: 13.1 acres of land zoned Shopping Center in the northeast portion of the site; 14.4 acres of land zoned Parks/Open Space in three separate areas throughout the project site; and 28.2 acres of land zoned Urban Farm in the southwest portion of the project site (See Figure 4-4). The project would include a total of 1,365 dwelling units.

Proposed General Plan Land Use Designations

The 202.8-acre portion of the site within the City limits is proposed to be developed consistent with the existing General Plan designations for the site. The 29.5-acre portion of the project outside of the City limits is currently designated Special Study Area. The proposed project includes a General Plan Amendment to designate the 29.5-acre special study portion of the site Suburban Center (4.9 acres) and Traditional Neighborhood Medium (24.6 acres) (See Figure 4-5).

Proposed Zoning

The existing zoning on the project site is inconsistent with the recently adopted General Plan designations. Therefore, the project application includes a request to rezone the site from Heavy Industrial (M-2S-SWR and M-2S-R-SWR) to Single Family Residential (R-1A SPD [PUD]), Multi-Family Residential/Mixed-Use (RMX SPD [PUD]), Shopping Center (SC SPD [PUD]), Parks/Open Space (A-OS SPD [PUD]), and Urban Farm (A SPD [PUD]) (See Figure 4-6).

Figure 4-3
Areas Subject to New Growth

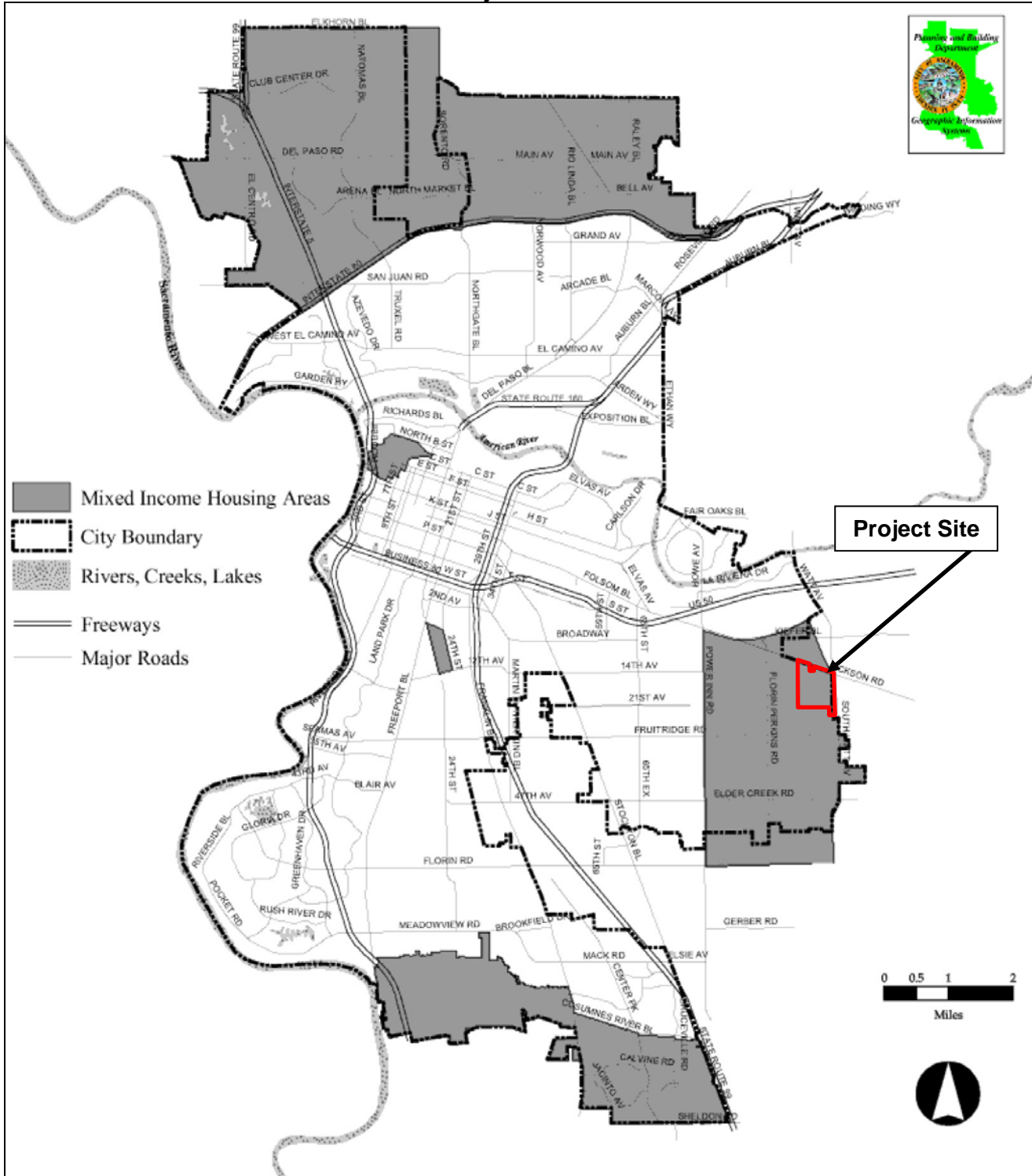
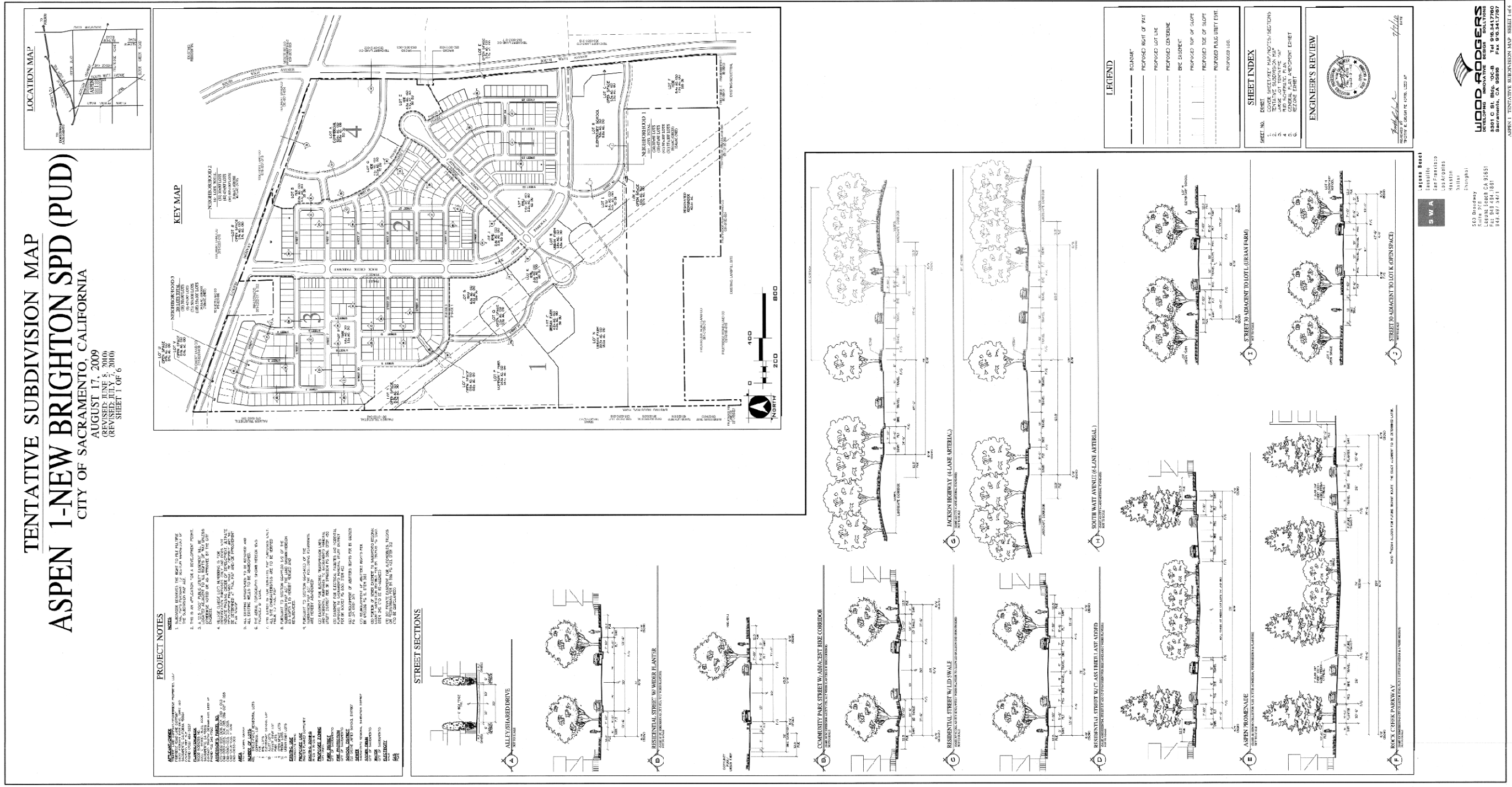
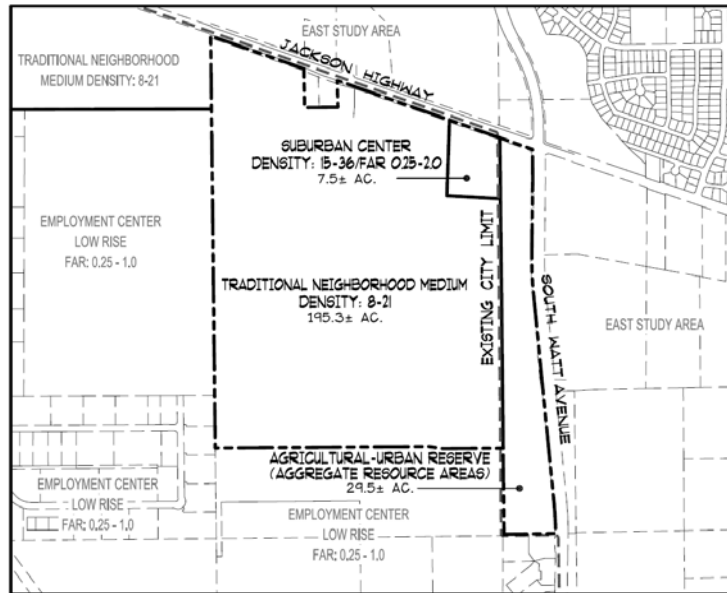


Figure 4-4
 Tentative Subdivision Map

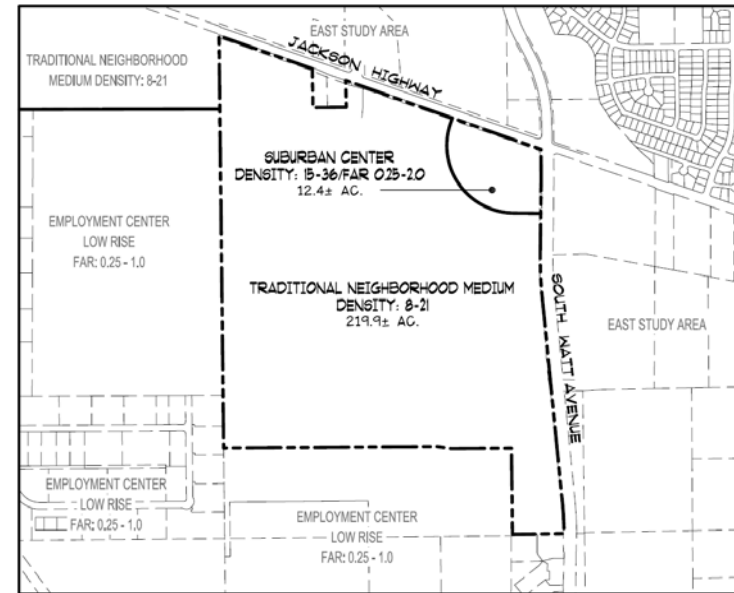


**Figure 4-5
 General Plan Amendment Exhibit**

General Plan Amendment Exhibit
ASPEN 1-NEW BRIGHTON SPD (PUD)
 City of Sacramento, California
 March 14, 2012
 SHEET 5 OF 6



Existing General Plan



Proposed General Plan

SHEET INDEX

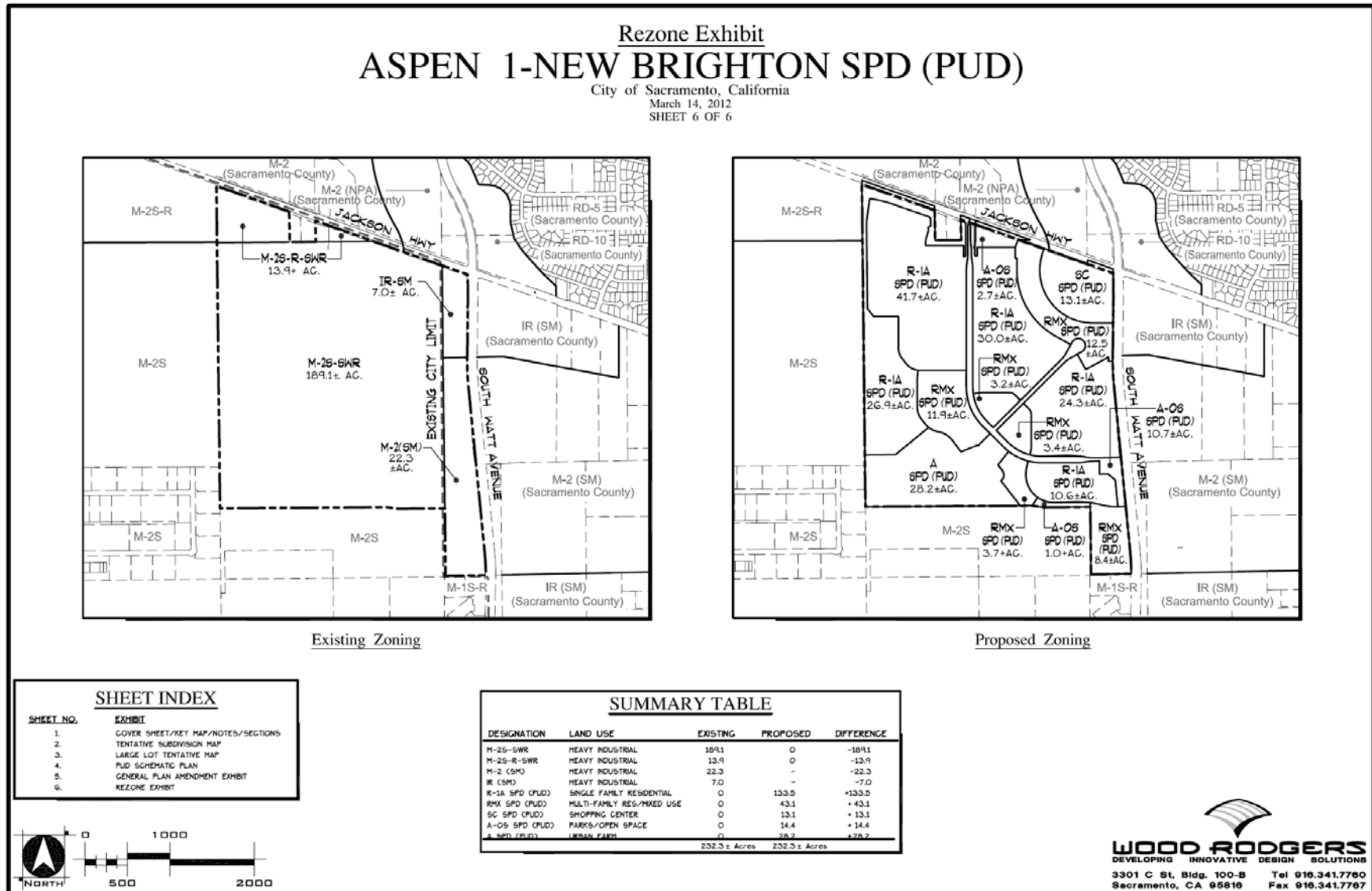
SHEET NO.	EXHIBIT
1.	COVER SHEET/KEY MAP/NOTES/SECTIONS
2.	TENTATIVE SUBDIVISION MAP
3.	LARGE LOT TENTATIVE MAP
4.	PUD SCHEMATIC PLAN
5.	GENERAL PLAN AMENDMENT EXHIBIT
6.	REZONE EXHIBIT

SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING	PROPOSED	DIFFERENCE
	TRADITIONAL NEIGHBORHOOD MEDIUM DENSITY 8-21	195.3	219.9	+24.6
	SUBURBAN CENTER DENSITY 15-36/FAR 0.25-2.0	7.5	12.4	+4.9
	AGRICULTURAL-URBAN RESERVE (AGGREGATE RESOURCE AREAS)	29.5	0	-29.5
		232.3 ± Acres	232.3 ± Acres	



Figure 4-6
 Rezone Exhibit



The prezone of the 29.5 acres located outside of the City of Sacramento, which is currently zoned Heavy Industrial (M-2[SM]) and Industrial Reserve Surface Mining Combining Zone (IR-SM), is required in order to establish City zoning for the project site, which would be effective upon annexation approval by LAFCo. The Sacramento Zoning Code (Title 17) defines the proposed zoning designations as follows.

Planned Unit Development (PUD)

The *Draft New Brighton PUD Guidelines* provide a comprehensive overview of the design criteria and development standards required to implement the desired physical form of the community and key features. The *Draft New Brighton PUD Guidelines* address land use, site design, sustainability, architecture, landscaping, circulation, and other components to create a distinguished community comprised of high quality architecture, ample open space and recreational areas, and a balanced mixture of uses. The *Draft New Brighton PUD Guidelines* divide the project into three land use districts, Community Commercial, Four Corners Village Center, and Traditional Neighborhoods.

Community Commercial District

The Community Commercial District is located in the northeast corner of the project site at the intersection of Jackson Highway and South Watt Avenue. The Community Commercial District provides a commercial and multi-family anchor to the project, with access to a heavily traveled corridor and transit. Multi-family uses provide a synergy between the commercial and multi-family uses. In addition, the district is designed to facilitate transit and alternative modes of transportation.

Four Corners Village Center District

The Four Corners Village Center District is located in the southwest portion of the project site. The district will include a mix of uses including the following: neighborhood-oriented services, recreation areas, high-density residential, and an urban farm. The ground-level uses within the mixed use area of the district may include high density residential, neighborhood-serving commercial, and community facilities such as an amphitheater, health club, post office, community meeting hall, agricultural supporting uses, and iconic landscape features. Second floor uses may include additional high density residential and/or office space. The southwest portion of the district includes a community park and urban farm. The urban farm will provide locally grown fresh produce and recapture the agricultural history of the area through educational and cultural activities associated with farming.

Traditional Neighborhoods District

The Traditional Neighborhoods District is located between the Community Commercial District and Four Corners Village Center District. The Traditional Neighborhoods District includes a variety of residential densities with neighborhoods organized according to a gridded street system with short block lengths, pedestrian-friendly streets, and large planter areas to promote walkability. Residences will include a variety of architectural designs as well as garage type and placement.

Special Planning District

The New Brighton Special Planning District (SPD) establishes procedures to govern the use of the proposed project site as a mixed-use infill district. The SPD designates the land uses within the boundaries of the project area and is the primary policy and regulatory document used to guide redevelopment of the project site. The development guidelines for the project site are incorporated into the SPD through reference to the New Brighton PUD. The New Brighton SPD zones shall allow for the continuation of industrial uses, including but not limited to all existing buildings, structures, and equipment until such time as the use is terminated and able to transition to the land uses established in the New Brighton SPD. Existing uses include, but are not limited to, those uses permitted in the M-2S and M-2SR zones under Section 17.24.040 of the Sacramento City Code.

Single-Family Residential Zone (R-1A)

The R1-A zoning district is a low- to medium-density residential zone intended to permit the establishment of single-family, individually owned, attached or detached residences where lot sizes, height, area and/or setback requirements vary from standard single-family. This zone is intended to accommodate alternative single-family designs which are determined to be compatible with standard single-family areas and which might include single-family attached or detached units, townhouses, cluster housing, condominiums, cooperatives or other similar projects.

Multi-Family Residential/Mixed Use Zone (RMX)

The RMX zoning district permits multi-family residential, office and limited commercial uses in a mixture established for the area through a special planning district. The primary goal for this zone is to provide a mixture of higher density residential and mixed-use commercial development. The maximum density in the RMX zone is 40 dwelling units per acre. In addition, the RMX zone is exempt from the provisions of Section 17.28.030 of the Sacramento City Code.

Shopping Center Zone (SC)

The SC zoning district is a general shopping center zone that provides a wide range of goods and services to the community. This zone is intended to provide a broad array of commercial and retail services while maintaining local street and bicycle/pedestrian connections to the neighborhood. This zone prohibits general commercial uses that are not compatible with a retail shopping center.

Parks/Open Space Zone (A-OS)

The A-OS zoning district is designed for the long term preservation of agricultural and open space land. Areas within the project site that are zoned A-OS are intended to serve as agricultural or open space features such as edible landscapes, entry features, and buffers.

Agricultural Zone (A)

The A zoning district is intended to implement the overall vision of the proposed project by providing a place to produce, showcase, and distribute local produce. Consistent with this goal, this zoning district permits general agricultural and farming activities, educational facilities

(including a school), community gathering areas, office, retail, and up to 50 residential units. A minimum of 15 acres shall be utilized for general agricultural activities that raise, produce, or keep plants or small animals.

Consistency Analysis

Consistency with the Sacramento 2030 General Plan

A majority of the site, 195.3 acres, is designated Traditional Neighborhood Medium. In addition, 7.5 acres are designated Suburban Center and 29.5 acres are designated Special Study Area. The project would include a General Plan Amendment to redesignate the Special Study Area portion of the site as Traditional Neighborhood Medium and Suburban Center. The proposed project would include redevelopment of a largely vacant aggregate mining site to create a mixed-use development that would provide a diversity of housing choices. The project would include a 32.2-acre urban farm in the southwest portion of the site and a 26.9-acre open space/park near the western boundary. The urban farm and open space would provide a transition from the surrounding employment center designations to single family residential, multi-family residential/mixed-use, and shopping center. The commercial component would, in turn, provide necessary services and shopping opportunities for nearby residents as directed in Policy 4.12.

Development of the residential portion of the site would include approximately 482 single-family lots, four multi-family lots, one commercial lot, five residential mixed-use lots, one elementary school lot, two park lots, nine open space lots, and three urban farm lots. The 482 single-family lots would be developed over 133.5 acres and divided into three neighborhoods. The multi-family residential/mixed-use lots would include approximately 405 units developed at a density of 25 dwelling units per acre (du/ac). In addition, one of the urban farm lots would include approximately 50 units for farmworkers.

The multi-family residential/mixed-use portion of the site would include approximately 405 units at a density of 30 du/ac, and the shopping center portion of the site would include approximately 50 units at a density of 4.8 du/ac. In compliance with Goal LU 5.3, the proposed project would provide a center for shopping and socialization within walking distance of the proposed neighborhoods. Furthermore, application of the proposed PUD guidelines would ensure that the urban farm and mixed-use portion of the site would integrate with proposed residential neighborhoods. The overall density of the proposed project would be approximately 9.8 du/ac (1,365 units / 138.9 acres = 9.8 du/acre).

As noted above, the project includes annexation of a 29.5-acre portion of the project from the Sacramento County to the City of Sacramento. Consistent with Policy LU 1.1.8, upon annexation services would be provided by the City. The provision of services and discussed in Chapters 5.9, Public Services, 5.11, Utilities, Service Systems, and Energy, 5.12, Parks and Recreation, and 6, Reorganization.

Consistent with Land Use and Urban Design Element Goal 2.1, the project includes a variety of residential housing, as well as distinct neighborhoods. As noted in the *Draft New Brighton PUD Guidelines*, the project is divided into three land uses districts, Community Commercial, Four Corners Village Center, and Traditional Neighborhoods. The project includes the development of a mixed-use neighborhood, including local-serving commercial and employment uses, diverse housing opportunities, and transit opportunities which would be consistent with Policy

LU 2.15. In addition, the urban farm and community park portion of the project would meet Policy LU 2.3.1, Multi-functional Green Infrastructure, which encourages a comprehensive and integrated system of parks and open space to complement the City's urbanized areas.

Goal LU 4.1 and Policies LU 4.1.1 through 4.1.12 promote the development and preservation of neighborhoods that provide a variety of housing types, densities, and designs and a mix of uses and services that address the diverse needs of Sacramento residents. As noted above, the project includes single-family residential uses, as well as a mixed-use component that includes multi-family residential uses. In addition, the project includes a neighborhood serving commercial area and an urban farm. Consistent with Policy LU 4.1.3 Walkable Neighborhoods, the Traditional Neighborhoods District includes a variety of residential densities with neighborhoods organized according to a gridded street system with short block lengths, pedestrian-friendly streets, and large planter areas to promote walkability. The urban farm includes approximately 50 dwelling units for farmworkers and an area for a farmers market.

Goal LU 5.1 and Policies 5.1.1 through 5.1.4 promote the development of well-designed mixed-use centers that are efficiently served by transit, provide higher-density, urban housing opportunities and serve as centers of civic, cultural, and economic life. Consistent with the General Plan Goals and policies, the Community Commercial portion of the project provides a commercial and multi-family anchor to the project, with access to a heavily traveled corridor and transit. In addition the Four Corners Village Center portion of the project includes a combination of mixed uses, neighborhood-oriented services, recreations areas, and the urban farm.

The proposed project includes a General Plan Amendment to adjust the policy language to further support urban farm uses. A new policy would be added to the Land Use Element as follows:

- LU 8.2.8 Urban Farms. The City shall support existing urban farms and encourage the development of additional urban farms that are designed appropriately to fit within the urban fabric and provide residents with easy access to fresh, local food products.

In addition, the following policies of the Environmental Resources Element Agriculture Section of the General Plan would be modified as follows, where the proposed changes are indicated by double-underlines:

- ER 4.1.1 Locally Grown and Organic Foods. The City shall provide venues for urban farms and farmer's markets, particularly in areas that lack access to fresh and healthy foods, and encourage serving locally grown and organic foods at City public facilities.
- ER4.2.2 Urban Farms, Edible Landscape and Community and Rooftop Gardens. The City shall promote urban agriculture by supporting urban farms, edible landscapes and community and rooftop gardens and recognize~ their value in providing fresh food in urban areas in addition to their recreational, community building, landscaping and educational value.

The application of the PUD designation allows for a mixture of reduced and increased densities within an overall project area. While the proposed project would not meet the identified minimum

density of the Suburban Center uses, the overall project density is in substantial conformance with the goals and policies of the 2030 General Plan. In addition, upon approval of the above policy language modifications, the project would be consistent with the General Plan policies regarding urban farm land uses. Therefore, the project would be consistent with the proposed 2030 General Plan Land Use designations.

Consistency with the City of Sacramento Zoning Ordinance

A zoning designation applied to the subject property must be consistent with the General Plan and the anticipated uses of the project site. The proposed project is inconsistent with the Heavy Industrial zoning designation of the project site. The project applicant has therefore requested a rezone to a mixture of Shopping Center, Single-Family Residential, Multi-Family Residential/Mixed Use, Agricultural, and Agricultural-Open Space. All of the designations would also include the application of Special Planning District (SPD) and Planned Unit Development (PUD) designations to bring the project into consistency with the requested General Plan designation and anticipated mixed residential and commercial uses of the project site.

The PUD requires the submittal of a Schematic Plan that generally lays out the project; and the PUD includes design and development guidelines that establish the style, quality, and site and architectural design requirements of projects within the PUD. The PUD documentation and adoption would provide the assurances required by the City of Sacramento and the surrounding neighborhood residents that the project would be developed in accordance with the quality and level of planning and design consistent with, and an asset to, the surrounding established neighborhoods. The SPD and PUD design guidelines would provide homebuilders with design direction for the design of single-family residences within Aspen I. Should the home builder be consistent with the design principles identified SPD and PUD design guidelines, the Aspen I PUD would require minimum Plan Review for the construction of single-family homes.

As required by the City of Sacramento Zoning Ordinance for Planned Unit Developments, projects within the Aspen 1-New Brighton SPD PUD would be subject to Plan Review by the City's Planning Director, pursuant to Section 17.180.020 of the Ordinance. Should the City Council approve the requested rezone to Special Planning District Planned Unit Development, the project would be consistent with the zoning. However, the rezone is a discretionary action of the City Council.

The Mixed-Income Housing Ordinance requires that ten percent of the dwelling units within new residential developments be affordable to very low-income households, and five percent of the dwelling units be affordable to low income households. These low and very low income housing units must be visually compatible with the market rate units, and accommodate diverse family sizes as determined by the Planning Director. In compliance with the Mixed-Income Housing Ordinance, an Inclusionary Housing Plan is being prepared for the proposed project. The project would comply with the Mixed-Income Housing Ordinance and provide approximately 137 income-restricted housing units. Therefore, the proposed project would comply with the City's Zoning Ordinance and SPD and PUD guidelines.

Consistency with the 2010 Sacramento City/County Bikeway Master Plan

The 2010 City/County Bikeway Master Plan was developed to serve the recreational and transportation needs of the public. The Bikeway Master Plan includes all of Sacramento County, which consists of 997 square miles and 3,887 miles of public roads. The intention of the 2010

City/County Bikeway Master Plan was to develop a comprehensive plan that meets the needs of all bicyclists within the City/County. The trails included as part of the proposed project are consistent with the Bikeway Master Plan. However, implementation of the proposed project would require an amendment to the 2010 City/County Bikeway Master Plan in order to include the Aspen 1-New Brighton Trails Plan in the Master Plan document and maps in order to reflect the proposed trails in the Bikeway Master Plan. The amendment would be approved in conjunction with approval of the project.

Compatibility with Existing Adjacent Land Uses

The determination of compatibility of land uses typically relies on a general discussion of the types of adjacent land uses to a proposed project and whether any sensitive receptors exist on the adjacent properties or are associated with the proposed project. Incompatibilities typically exist when uses such as residences, parks, churches, and schools are located adjacent to more disruptive uses such as heavy industrial, major transportation corridors, and regional commercial centers where traffic levels and attendant noise may be high. The identification of incompatible uses occurs if one land use is anticipated to be disruptive of the existing or planned use of an adjacent property.

Approval of the proposed project would result in development of 133.5 acres of Single-Family Residential; 43.1 acres of Multi-Family Residential/Mixed-Use; 13.1 acres of Shopping Center; 14.4 acres of Open Space/Park throughout the project site; 8.8 acres for an elementary school with an underlying designation of Single-Family Residential; and 28.2 acres of land designated Urban Farm. It should be noted that the project would include annexation of 29.5 acres in the eastern portion of the site from the County to the City. This 29.5-acre portion is currently vacant, aside from an existing Sacramento Regional County Sanitation District (SRCSD) pump station.

Commercial

The project includes approximately 13.1 acres of Suburban Center uses in the northeast corner of the site. The Suburban Center uses would likely include neighborhood-serving retail and commercial tenants that would be supportive of the existing multi-family neighborhood to the northeast as well as the proposed residential to the southwest. The multi-family uses to the north would provide a transition between the proposed commercial and single-family uses. Therefore, the proposed commercial uses would be compatible with the surrounding existing and proposed residential uses.

Multi-Family Residential/Mixed Use

The project includes a multi-family residential/mixed-use component. As noted above, the high density multi-family uses would serve as a transition between the proposed commercial and single-family uses. In addition, the multi-family uses would be located in close proximity to the roadways for access to transit.

Single-Family Residences

The proposed single-family uses are located in the central portion of the project site. The single-family uses would be compatible with and the proposed elementary school, residential mixed-use, community park, open space, and high density residential uses. The high density residential to the north would serve as a transition between the proposed neighborhood

commercial uses in the northeastern portion of the site and the residential mixed-use would serve as a buffer between the proposed urban farm uses. In addition, the open space to the north, east, and west of the single-family uses along Jackson Highway, South Watt Avenue, and the former F+P Landfill would be lined with trees. Therefore, the single-family uses would be compatible with the existing and proposed adjacent uses.

Urban Farm and Park

The project includes a 14.8-acre community park and a 28.2-acre urban farm in the southwest portion of the project site. The community park would be adjacent to single-family residences to the north, residential mixed-use to the east and the urban farm to the south. The community park is consist with the surrounding uses and would serve as a transition between the urban farm and single-family residences. In addition, residential mixed-use would serve as a transitional between urban far, single family residences, and elementary school. It should be noted that the community park and urban farm area use would be similar to the existing agricultural uses on the project site.

Surrounding Uses

Surrounding uses includes Jackson Highway and the Teichert Perking Plant to the north, an active sand and gravel processing and sales facility, Teichert Aspen 2 property to the east, a former mine site similar to the project site, L and D Landfill to the south, a Class III facility limited to commercial waste and recycling, and the former Florin Perkins Landfill to the west and Florin Perkins Road. In addition, northwest of the project site, multi-family and single-family residences are located across the intersection of South Watt Avenue and Jackson Highway. Industrial uses are located west of the site between the L and D Landfill and former F+P Landfill.

The project landscaping includes a row of trees and/or open space along the border of the project site to provide a buffer between existing uses. The project is bordered to the west by the former F+P Landfill, which currently operates as a construction debris recycling center. The construction debris processing center is located in the central portion of the F+P Landfill, away from the project site.

The L and P Landfill is a Class III landfill accepts materials that are not required to be disposed of in a Class I landfill. This material is collectively referred to as trash. Typical items include furniture, construction debris, roofing material, wood, carpet, and vegetative debris. Class III landfills are prohibited from accepting whole tires, automotive batteries, and appliances containing refrigerant (refrigerators) or combustible gas, such as propane. In addition, operation and fill of the landfill has been applied to the northern portion of the landfill and will continue south, away from the project site. Additionally, other physical environmental impacts such as noise and use of hazardous materials arise from the existing land uses (the physical impacts will be discussed in the technical chapters of this EIR).

The project site is bordered to the north by the Teichert Perkins plant, beyond Jackson Highway, and to the east by mining areas beyond South Watt Avenue. Jackson Highway and South Watt Avenue provide a buffer between the mining and related activities and the project site. The southwest and southeast corners of the project site are adjacent to existing industrial park areas. The industrial park uses to the southwest would be adjacent to the proposed urban farm uses. In addition, the industrial park uses to the south would be adjacent to proposed high

density residential uses. The urban farm and high density residential uses would serve as a transition between the industrial uses and proposed single-family uses.

Multi-family and single-family uses are located northeast of the project site, diagonal from the proposed commercial uses. The proposed commercial neighborhood uses would be consistent with the residential uses to the northeast.

Conclusion

The project includes the development of a variety of residential uses, community park, urban farm, and commercial. Rows of trees and open space would surround the project site and provide a buffer between proposed and existing uses. The project is designed to provide a smooth transition from existing uses to urban farm and commercial uses, followed by high density residential, mixed-use residential, school uses, and single-family residential. Therefore, the project would be considered compatible with existing adjacent land uses.

Housing and Population

Consistency with the Sacramento Housing Element

The proposed project includes the development of approximately 1,365 residential units, including 483 single-family units, 378 multi-family units, 405 mixed-use units, 50 suburban center units, and 50 urban farm units. Consistent with Housing Element Policy H-1.2.1 and H-1.2.2, the project includes the development of a variety of housing tenure, size, and type. In addition, consistent with Policy H-1.2.4, the project includes a mixed-use retail, employment, and residential development along Jackson Highway.

As stated above, the project includes the development of approximately 137 income restricted housing units. Consistent with policies H-1.3.2 and H.1.3.4, the project includes a range of housing opportunities, including multi-family affordable housing.

The existing Sacramento 2030 Land Use designations for the site include approximately 195.3 acres of Traditional Neighborhood Medium, 7.5 acres of Suburban Center, and 29.5 acres of Special Study Area. The project includes the designation of the 29.5-acre Special Study Area to 19.6 acres of Traditional Neighborhood Medium and 9.9 acres of Suburban Center. The project would result in the development of approximately 126.5 gross acres of Traditional Neighborhood Medium and 12.4 gross acres of Suburban Center uses. Buildout of the proposed land uses would result in the development of 1,198 to 3,103 residential units (126.5 acres x 8 du/acre + 12.4 acres x 15 du/acre = 1,102 + 186 = 1,198 units) (126.5 acres x 21 du/acre + 12.4 acres x 36 du/acre = 2,657 + 446 = 3,103 units). However, the proposed project includes the development of approximately 1,365 residential units, 167 more than and 1,738 less than anticipated for the project site. Therefore, the proposed project population generation would be within the maximum and minimum population anticipated in the 2030 General Plan Housing Element. It should be noted that LAFCo related impacts are discussed in Chapter 6, Reorganization, of the Draft EIR.

Endnotes

¹ City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

² City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

³ City of Sacramento, *Zoning Ordinance, Ordinance No. 2550, Fourth Series*, Revised January 1, 1997.

**5. ENVIRONMENTAL SETTING, IMPACTS,
AND MITIGATION MEASURES**

5.0 INTRODUCTION TO THE ANALYSIS

5.0

INTRODUCTION TO THE ANALYSIS

5.0.0 INTRODUCTION

The environmental assessment in the EIR analyzes the potential impacts of buildout of the Aspen 1-New Brighton project (proposed project) on a range of environmental issue areas. Chapters 5.1 through 5.12 of this Draft EIR describe the focus of the analysis, references and other data sources for the analysis, the environmental setting (as the setting relates to the specific issue), project-specific impacts and mitigation measures, and cumulative impacts of the proposed project for each issue area. The format of each of these chapters is described below.

5.0.1 DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the environment (Public Resources Code § 21068). The CEQA Guidelines direct that this determination be based on scientific and factual data. The specific criteria for determining the significance of a particular impact are identified within the impact discussion in each technical chapter, and are consistent with significance criteria set forth in the *Sacramento 2030 General Plan Draft Master EIR*.

5.0.2 INITIAL STUDY

The Initial Study (See Appendix C) prepared for the proposed project as part of this Draft EIR includes a detailed environmental checklist addressing a range of technical environmental issues. For each technical environmental issue, the Initial Study identifies the level of impact for the proposed project. The Initial Study identifies the environmental effects as either “no additional significant environmental effect,” “effect can be mitigated to less than significant,” or “effect will be studied in the EIR.” The Initial Study determined that all of the environmental effects fall under the category of “effect will be studied in the EIR.”

Issues Addressed in this Draft EIR

As discussed above, the Initial Study (See Appendix C of this Draft EIR) identified environmental impacts as “effect will be studied in the EIR,” which indicates that the effect requires further analysis. This Draft EIR provides the additional analysis necessary to address the technical environmental impacts not fully resolved in the Initial Study. The following environmental issues are addressed in the Draft EIR:

- Air Quality and Climate Change;
- Biological Resources;
- Cultural Resources;
- Geology, Soils, and Mineral Resources;
- Hazards and Hazardous Materials;
- Hydrology, Water Quality, and Drainage;

- Noise and Vibration;
- Parks and Recreation;
- Public Services;
- Transportation and Circulation;
- Urban Design and Visual Resources;
- Utilities, Service Systems, and Energy; and
- Reorganization.

5.0.3 CHAPTER/SECTION FORMAT

Each technical chapter begins with an **introduction** describing the purpose of the section. The introduction is followed by a description of the project's **environmental setting** as the description pertains to that particular issue. The setting description is followed by the **regulatory background** and the **impacts and mitigation measures** discussion. The *impacts and mitigation measures* discussion contains the **significance criteria**, followed by the **methods of analysis**. The *impact and mitigation measures* discussion includes impact statements prefaced, by a number in bold-faced type. An explanation of each impact and an analysis of the impact's significance follow each impact statement. All mitigation measures pertinent to each individual impact follow directly after the impact statement. The degree of relief provided by identified mitigation measures is also evaluated. An example of the format is shown below:

5.x-1 Statement of Impact

Discussion of the impacts of the proposed project in paragraph format.

Statement of **level of significance** of impact prior to mitigation is included at the end of each impact discussion.

Mitigation Measure(s)

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

5.x-1(a) *Required mitigation measure(s) presented in italics and labeled in consecutive order.*

5.x-1(b) *etc.*

5.1 AIR QUALITY AND CLIMATE CHANGE

5.1

AIR QUALITY AND CLIMATE CHANGE

5.1.0 INTRODUCTION

The Air Quality chapter of the EIR describes the impacts of the Aspen 1-New Brighton project (proposed project) on local and regional air quality. 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 guidelines, 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 proposed project, the impacts of these emissions on both local and regional scales, and mitigation measures to reduce or eliminate any identified significant impacts. In addition, this chapter analyzes the project's greenhouse gas (GHG) emissions. This chapter is based on the *Sacramento 2030 General Plan*,¹ the *Sacramento 2030 General Plan Master EIR* (MEIR),² and the *Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project* prepared by URS Corporation (See Appendix F).³

5.1.1 EXISTING ENVIRONMENTAL SETTING

The following setting information provides an overview of the existing air quality in the proposed project area. In addition, the climate and topography of the region, air pollutants and ambient air quality standards, and wind's effects on air quality are described.

Climate and Topography

The SMAQMD is located within the Sacramento Valley Air Basin (SVAB). The SVAB encompasses eleven counties including all of Shasta, Tehama, Glenn, Colusa, Butte, Sutter, Yuba, Sacramento, and Yolo Counties, the westernmost portion of Placer County and the northeastern half of Solano County. The SVAB is bounded by the North Coast Ranges on the west and Northern Sierra Nevada Mountains on the east. The intervening terrain is relatively flat.

Hot dry summers and mild rainy winters characterize the SVAB's Mediterranean climate. During the year, the temperature may range from 20 to 115 degrees Fahrenheit with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches, and the rainy season generally occurs from November through March.

The prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north. The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants under certain meteorological conditions. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells collect over the Sacramento Valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of

pollutants are highest when these conditions are combined with temperature inversions that trap pollutants near the ground.

The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds with the delta sea breeze arriving in the afternoon out of the southwest. Usually the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. During about half of the days from July to September, however, a phenomenon called the “Schultz Eddy” prevents this from occurring. Instead of allowing the prevailing wind patterns to move north, carrying the pollutants out, the Schultz Eddy causes the wind pattern to circle back to the south. Essentially, this phenomenon causes the air pollutants to be blown south toward the Sacramento metropolitan area. This phenomenon has the effect of exacerbating the pollution levels in the area and increases the likelihood of violating federal or State standards. The eddy normally dissipates around noon when the delta sea breeze arrives.

Ambient Air Quality and Pollutant Characteristics

Table 5.1-1 summarizes recent air monitoring data for locations near the proposed project site. As the table shows, violations were recorded for the State and federal ozone standards, for the federal PM_{2.5} standards, and for the State PM₁₀ standards.

Characteristics and Health Effects of Air Pollutants

Ozone

Ozone in the lower atmosphere is one of the main components of smog. Ozone is not directly emitted but is formed in the atmosphere over several hours from combinations of various precursors in the presence of sunlight. Reactive organic gases (ROG) and nitrogen oxides (NO_x) are considered the primary compounds, or precursors, contributing to the formation of ozone. Ozone is viewed as both a secondary pollutant and a regional pollutant because ozone can form far from where precursors are emitted.

Short-term exposure to ozone can result in injury and damage to the lungs, decreases in pulmonary function and impairment of immune mechanisms. Chronic lung disease can occur because of longer-term exposure. Symptoms of ozone irritation include shortness of breath, chest pain when inhaling deeply, wheezing, and coughing. Children and persons with pre-existing respiratory disease (e.g., asthma, chronic bronchitis, and emphysema) are at greater risk.

ROG are photochemically reactive hydrocarbons whose primary sources include mobile sources, consumer products, petroleum marketing (e.g., gas dispensing), coatings and solvents, and agricultural related activities. NO_x is a family of gaseous nitrogen compounds whose emissions result primarily from the combustion of fossil fuels under high temperature and pressure. On road and off-road motor vehicle fuel combustion is the major source of this air pollutant.

Table 5.1-1 Air Quality Monitoring Data Summary (2008-2010) for the Project Area			
Pollutant	2008	2009	2010
Ozone			
Folsom – Natoma Street			
Highest 1-hour average, parts per million (ppm)	<u>0.166</u>	<u>0.120</u>	<u>0.124</u>
Highest 8-hour average, ppm	0.123	0.104	0.112
Days > State 1-hour standard	38	24	12
Days > Federal 8-hour standard	50	35	19
Days > State 8-hour standard	65	47	26
Percent of Year Covered	97	96	94
Particulate Matter (PM₁₀)			
Sacramento – Stockton Blvd			
Highest 24-hour average, µg/m ³	88	45	45
Days > State 24-hour standard	13	0	0
Annual Average, µg/m ³	23.9	18.6	15.8
Percent of Year Covered	98	93	97
Particulate Matter (PM_{2.5})			
Sacramento – Stockton Blvd			
Highest 24-hour average, µg/m ³	<u>64.8</u>	<u>42.4</u>	29.0
Days > Federal standard	21.5	3.1	0
Percent of Year Covered	98	97	94
Nitrogen Dioxide			
Folsom – Natoma Street			
Highest Hourly average, ppm	0.042	0.038	0.028
Days > State standard	0	0	0
Percent of Year Covered	96	97	92
Carbon Monoxide			
Sacramento – El Camino and Watt			
Highest 1-hour Average	2.8	2.8	1.9
Highest 8-hour Average	2.4	N/A	N/A
Notes: Underlined values represent those in excess of the National Ambient Air Quality Standards. Bolded values represent those in excess of the applicable California Ambient Air Quality Standards.			
ppm = parts per million, µg/m ³ = micrograms per cubic meter			
Source: California Air Resources Board, 2011, U.S. Environmental Protection Agency, 2011a.			

Particulate Matter

The term "particulate matter" (PM) includes both solid particles and liquid droplets found in air. Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. These solid and liquid particles come in a wide range of sizes. Particles less than 10 micrometers in diameter (PM₁₀) pose a health concern because they can be inhaled into and accumulate in the respiratory system. Particles with diameters between 2.5 and 10 micrometers are referred to as "coarse." Sources of coarse particles include crushing or grinding operations, and dust from paved or unpaved roads. Particles less than 2.5 micrometers in diameter (PM_{2.5}) are referred to as "fine" particles and are believed to pose the largest health risks. Because of their small size, fine particles can lodge deeply into the lungs. Sources of fine particles include all types of combustion (motor vehicles, power plants, wood burning, etc.) and

some industrial processes. In 1997, the EPA adopted a fine particulate matter standard for PM_{2.5} for the first time, and revised the standard for PM₁₀. The ARB adopted an annual PM_{2.5} standard in 2002. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, bronchitis, and respiratory illnesses in children.

Carbon Monoxide

Carbon monoxide is formed by the incomplete combustion of carbon-containing material. Under most conditions, CO does not persist in the atmosphere and is rapidly dispersed. Elevated levels of CO are most likely to occur in the winter, when inversion levels trap pollutants near the ground and concentrate the CO. Since CO is somewhat soluble in water, normal winter conditions of rainfall and fog can suppress CO concentrations. Motor vehicles are the dominant source of CO emissions and adverse localized impacts can be created in areas of heavy traffic congestion.

When CO combines with hemoglobin in the blood, the oxygen-carrying capacity of the blood is reduced and the release of oxygen is inhibited or slowed. This condition places angina (uncomfortable pressure, fullness, squeezing, or pain in the center of the chest) patients, persons with other cardiovascular diseases or with chronic obstructive lung disease, or asthma at risk. At higher levels, CO also affects the central nervous system. Symptoms of exposure may include headaches, dizziness, sleepiness, nausea, vomiting, confusion, and disorientation.

Other Criteria Pollutants

The standards for NO₂, SO₂, and lead are being met in the SMAQMD, and the latest pollutant trends suggest that these standards will be attained for the near future. Ambient levels of airborne lead are well below the State and federal standards and are expected to continue to decline. Since the phase-out of leaded gasoline, ambient lead concentrations have decreased dramatically and lead inhalation is no longer a significant health concern.

Toxic Air Contaminants

In addition to the criteria air pollutants, TACs are another group of airborne substances known to be highly hazardous to health, even in small quantities. TACs are capable of causing short-term (acute) and long-term (chronic or carcinogenic) adverse human health effects. TACs can be emitted from a variety of common sources, including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. Agricultural and construction activities can also contribute to toxic air emissions. In 1998, ARB also identified diesel exhaust particulate matter (diesel PM) as a TAC.

GHGs and Global Climate Change

This discussion sets forth the City of Sacramento's current approach to the evaluation of environmental effects of GHG emissions and their contribution to global climate change. The essence of the City's approach is that the 2030 General Plan moves the City toward a pattern of urban development that avoids dispersed residential and employment centers that by their design encourage motor vehicle trips, one of the largest contributors to GHG emissions. Likewise, the 2030 General Plan calls for strengthening the City's efforts to promote building

standards to reduce the carbon footprint of buildings by decreasing electricity usage, another of the major contributors of GHG.

2030 General Plan and Climate Action Plan

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 buildout date of 2030. The City Council approved the 2030 General Plan on March 3, 2009.

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 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.

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 GHG 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 and move the City and the region toward a more sustainable future.

The 2030 General Plan included direction to staff to prepare a Climate Action Plan for the City. The Sacramento City Council approved adoption of the City of Sacramento Climate Action Plan on February 14, 2012. The Climate Action Plan presents the City’s inventory of GHGs and potential climate change impacts, forecasts the growth emissions, commits to the goals outlined in AB 32, and plans for a climate-resilient community.

Federal and State policy regarding climate change and reduction of GHGs continues to evolve:

1. On December 7, 2009, the US EPA issued two distinct findings⁴ regarding GHG’s under section 202(a) of the Clean Air Act:
 - **Endangerment Finding:** The Administrator found that the current and projected concentrations of the six key well-mixed GHGs – carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) – in the atmosphere threaten the public health and welfare of current and future generations.
 - **Cause or Contribute Finding:** The Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the EPA's proposed GHG standards for light-duty vehicles, which were jointly proposed by EPA and the Department of Transportation's National Highway Safety Administration on September 15, 2009.⁵

2. The State of California announced its intent to reduce GHG's from passenger vehicles in 2002 with the passage of CA Assembly Bill 1493 (Pavley). The following summarizes recent changes in the implementation of the Pavley standards since publication of the MEIR:
 - The USEPA reversed its 2008 decision and granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks and sport utility vehicles on June 30, 2009.
 - Most recently, the ARB adopted amendments to the "Pavley" regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments, approved by the Board on September 24, 2009, are part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016.
 - ARB's September 2009 amendments finalized plans for enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments will also prepare California to harmonize its rules with the federal rules for passenger vehicles.
3. In October 2008, Governor Schwarzenegger signed SB 375, which requires the California Air Resources Board (ARB) to set regional targets for the purpose of reducing GHG emissions from passenger vehicles, for 2020 and 2035. If regions develop integrated land use, housing and transportation plans that meet the SB 375 targets, new projects in these regions can be relieved of certain review requirements of the California Environmental Quality Act. The targets apply to the regions in the State covered by the 18 metropolitan planning organizations (MPOs).

Per SB 375, on September 30, 2009, the ARB-appointed Regional Targets Advisory Committee (RTAC) submitted to the ARB its recommendations on factors to be considered and methodologies to be used in the ARB's target setting process. Key recommendations were as follows:

- Adoption of a uniform statewide target expressed as a per capita reduction below 2005 levels for each MPO region;
- Each MPO can either set their own targets or seek an adjustment to the statewide target;
- The SCS required for each MPO region should include all feasible measures to achieve the GHG targets;
- A seven-step process for MPOs should be followed in setting each region's baseline for 2005, examining alternative planning scenarios, and then confirming these with ARB prior to September 2010.

Master Environmental Impact Report

As part of its action in approving the 2030 General Plan, the City Council certified the Master Environmental Impact Report (MEIR) that evaluated the environmental effects of development

that is reasonably anticipated under the 2030 General Plan. The MEIR includes extensive discussion of the potential effects of GHG emissions, including the following sections:

- 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)

Global climate change occurs, by definition, on a global basis. GHGs 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 MEIR recognized these unique aspects of the problem. The MEIR acknowledges that the GHG emissions resulting from development that would be consistent with the 2030 General Plan would be cumulatively considerable, and significant and unavoidable (See MEIR 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 GHG 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 MEIR. Specific goals, policies, and programs targeting GHG reductions commit the City to AB 32 reduction targets, preparation of a GHG emissions inventory for existing land uses and 2030 General Plan buildout, reductions in GHG emissions from new development, and adoption of a Climate Action Plan with ongoing monitoring and reporting. Because the actual effectiveness of all the feasible policies and programs included in the 2030 General Plan that avoid, minimize, or reduce GHGs could not be quantified, the impact was identified as a significant and unavoidable cumulative impact.

Section 15183.5 of the CEQA Guidelines provides for use of tiering in the analysis of GHG emissions. This section provides that local agencies may analyze and mitigate the significant effects of project-level GHG emissions at a programmatic level of evaluation, by incorporating such analysis by reference in subsequent project-specific documents. The 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 [...]" (SMAQMD CEQA Guide, page 6-11) Although the ARB 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.

Project-Specific Effects

The City has periodically received comments that it should include a project-specific analysis of the impact of GHG emissions. The City's environmental documents discuss GHG emissions that would be generated by respective projects, and include an inventory of such emissions. Environmental documents also include a summary of the project components that would reduce GHG emissions, based on the Office of the Attorney General guidance. Other references in this regard may include the guidance provided by the California Air Pollution Control Officer's Association (CAPCOA), Association of Environmental Professionals (AEP), ARB and other agencies and organizations.

The City has acknowledged that the sum of GHG emissions that could be generated by development under the 2030 General Plan would be cumulatively considerable and has identified the goals and policies under the 2030 General Plan as the primary vehicle to mitigating such impacts. This programmatic approach achieves reductions in the two primary emitting categories: motor vehicle emissions and energy used in buildings. By adopting measures that are applicable community-wide, the City has implemented a reduction strategy that is fair and can be implemented with confidence that emission reductions will actually occur.

The same cannot be said for mitigation suggested on a case-by-case basis. Mitigation requirements under CEQA must be based on substantial evidence, and a reasonable relationship to the impact. No one has seriously suggested that substantial evidence exists that would enable the City to identify specific impacts from the emissions of an individual project under review. In fact, global climate change is an inherently cumulative impact, and the City has identified it and treated it as such. The City's 2030 General Plan and MEIR are the primary vehicles for that effort.

The City has identified GHG reduction goals, as stated in AB 32 and other State guidance as relevant to the impact analysis. This is, the City believes, consistent with guidance provided by the SMAQMD. In its CEQA Guide, the District suggests that local agencies properly consider adopting a threshold that considers whether an individual project's GHG emissions would substantially hinder the State's ability to attain the goals identified in AB 32. (SMAQMD CEQA Guide, page 6-11).

The MEIR concluded that GHG emissions that could be emitted by development that is consistent with the 2030 General Plan would be cumulatively considerable and unavoidable (Errata No. 2, Page 12). The MEIR includes a full analysis of GHG emissions and climate change and adequately addresses these issues.

In its review of individual projects, the City considers whether the particular project is consistent with the City's goals and policies as set forth in the 2030 General Plan and MEIR relating to reduction of GHG emissions. If the project would not impede the City's efforts to comply with AB 32 requirements, the City concludes that the project would not have any significant additional environmental effects relating to GHG emissions or climate change. CEQA Guidelines Section 15178.

Sensitive Receptors

Sensitive receptors are those who are particularly susceptible to the adverse effects of air pollution, such as children, the elderly, and the sick. Air pollution can cause adverse health

effects in humans including aggravating asthma conditions and other respiratory problems. The residents of the proposed project are considered sensitive receptors in that they could be exposed to air pollutants or odors from surrounding emission sources. Similarly, surrounding sensitive receptors could be exposed to emissions from the proposed project. The closest sensitive receptors to the project site include residences in the Rosemont area located northeast of the South Watt Avenue/Jackson Road intersection (See Figure 5.1-1).

5.1.2 REGULATORY BACKGROUND

Air Quality Regulatory Framework

Federal, State, and local government agencies have distinct responsibilities for protecting air quality. These responsibilities are described in more detail below.

Federal

The United States Environmental Protection Agency (EPA) implements national air quality programs established under the Federal Clean Air Act (FCAA). The FCAA requires that EPA set National Ambient Air Quality Standards (NAAQS) for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects such as visibility reduction.

Primary NAAQS were established for the following “criteria” air pollutants (so called because they were established based on health criteria):

- Ozone;
- Particulate Matter (PM₁₀, PM_{2.5});
- Nitrogen Dioxide (NO₂);
- Carbon Monoxide (CO);
- Sulfur Dioxide (SO₂); and
- Lead (Pb).

The primary NAAQS standards are intended to protect, with an adequate margin of safety, those persons most susceptible to respiratory distress, such as the elderly, young children, or people engaged in strenuous work or exercise. Table 5.1-2 presents the NAAQS. The FCAA requires that states not meeting the NAAQS prepare an air quality control plan referred to as the State Implementation Plan (SIP). SIPs are designed to bring non-attainment areas into attainment with the NAAQS. Table 5.1-3 shows Sacramento County’s attainment status for each of the criteria pollutants. Sacramento County is nonattainment for the federal ozone, PM₁₀, and PM_{2.5} standards. Air quality in Sacramento County is managed by the Sacramento Metropolitan Air Quality Management District (SMAQMD).

**Figure 5.1-1
Project Location**



Source: URS Corporation, Draft Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011.

**Table 5.1-2
 Ambient Air Quality Standards**

Contaminant	Averaging Time	State Standards ¹	Primary Federal Standards ²	Secondary Federal Standards ²
Ozone	1 hour	0.09 ppm	-	-
	8 hour	0.070 ppm	0.075 ppm	0.075 ppm
Particulate Matter (PM ₁₀)	24 hour	50 µg/m ³	150 µg/m ³	150 µg/m ³
	Annual arithmetic mean	20 µg/m ³	-	-
Particulate Matter (PM _{2.5})	24 hour	-	35 µg/m ³	35 µg/m ³
	Annual arithmetic mean	12 µg/m ³	15.0 µg/m ³	15.0 µg/m ³
Carbon Monoxide	8 hour	9.0 ppm	9 ppm	-
	1 hour	20 ppm	35 ppm	-
Nitrogen Dioxide	Annual arithmetic mean	0.030 ppm	0.053 ppm	0.053 ppm
	1 hour	0.18 ppm	0.1 ppm	-
Sulfur Dioxide	Annual arithmetic mean	-	0.03 ppm	-
	24 hour	0.04 ppm	0.14 ppm	-
	3 hour	-	-	0.5 ppm
Lead	1 hour	0.25 ppm	75 ppb	-
	30 day average	1.5 µg/m ³	-	-
Visibility reducing particles	Calendar quarter	-	1.5 µg/m ³	1.5 µg/m ³
	8 hour	See footnote ³	-	-
Sulfates	24 hour	25 µg/m ³	-	-
Hydrogen Sulfide	1 hour	0.03 ppm	-	-
Vinyl Chloride	24 hour	0.01 ppm	-	-

ppm – parts per million by volume, ppb – parts per billion by volume, µg/m³ – micrograms per cubic meter, PM₁₀ – particulate matter less than 10 microns in diameter

¹ California standards for ozone, carbon monoxide, sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter – PM₁₀, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average then some measurements may be excluded. In particular, measurements that the Air Resources Board determines would occur less than once per year on average are excluded.

² National standards other than for ozone, particulates, and those based on annual averages are not to be exceeded more than once per year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 ppb) or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour PM_{2.5} standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM₁₀ is met if the 3-year average falls below the standard at every site. The annual PM_{2.5} standard is met if the 3-year average of annual averages spatially averaged across officially designed clusters of sites falls below the standard.

³ Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent.

Source: California Air Resources Board, 2010a.

Table 5.1-3 Air Quality Standard Attainment Status for the Sacramento Region			
Contaminant	Averaging Time	State Standards Attainment Status	Federal Standards Attainment Status
Ozone	1 hour	N	N/A
	8 hour	N	N
Respirable Particulate Matter (PM ₁₀)	24 hour	N	N
	Annual Arithmetic Mean	N	N/A
Fine Particulate Matter (PM _{2.5})	24 hour	N	N
	Annual arithmetic mean	U	A
Carbon Monoxide	8 hour	A	A
	1 hour	A	A
Nitrogen Dioxide	Annual arithmetic mean	A	A
	1 hour	A	A
Sulfur Dioxide	Annual arithmetic mean	N/A	A
	24 hour	A	A
	3 hour	N/A	A
	1 hour	A	A
Lead	30 day average	A	
	Calendar quarter	N/A	A
Visibility Reducing Particles	8 hour	A	N/A
Sulfates	24 hour	A	N/A
Hydrogen Sulfide	1 hour	A	N/A
A = attainment, N = nonattainment, U = unclassified, N/A = not applicable (no standard has been enacted for this combination of pollutant and averaging period)			
<i>Source: California Air Resources Board, 2010b.</i>			

State

The California Air Resources Board (ARB) is the agency responsible for coordination and oversight of State and local air pollution programs in California. ARB has primary responsibility in California for developing and implementing air pollution control plans designed to achieve and maintain the NAAQS established by the EPA. Whereas ARB has primary responsibility and produces a major part of the SIP for pollution sources that are statewide in scope, it relies on the local air districts to provide additional strategies for sources under their jurisdiction. The ARB combines its data with local district data and submits the completed SIP to the EPA. The SIP consists of the emissions standards for vehicular sources and consumer products set by the ARB, and attainment plans adopted by the air districts and approved by ARB.

States may establish their own standards, provided the State standards are at least as stringent as the NAAQS. California has established California Ambient Air Quality Standards (CAAQS) pursuant to H&SC §39606(b) and its predecessor statutes. Table 5.1-2 also presents the CAAQS. In addition to the eight criteria pollutants established by the NAAQS, the CAAQS includes hydrogen sulfide, vinyl chloride, and visibility reducing particles.

California Health and Safety Code §39608 requires the ARB to “identify” and “classify” each air basin in the State on a pollutant-by-pollutant basis. Subsequently, the ARB has designated areas in California as nonattainment based on violations of the CAAQS. Table 5.1-3 shows Sacramento County to be nonattainment for the State ozone, PM₁₀, and PM_{2.5} standards.

ARB is also responsible for monitoring air quality. The ARB has established and maintains, in conjunction with the air districts, a network of sampling stations called the State and Local Air Monitoring (SLAMS) network that monitor actual pollutant levels present in the ambient air. State law recognizes that air pollution does not respect political boundaries and therefore requires the ARB to divide the State into separate air basins that have “similar geographical and meteorological conditions” while still making “considerations for political boundary lines whenever practicable” [H&SC §39606(1)].

Local

The SMAQMD is tasked with achieving and maintaining healthy air quality for Sacramento County’s residents. This is accomplished by establishing programs, plans, and regulations enforcing air pollution rules in order to attain all State and federal ambient air quality standards and minimize public exposure to airborne toxic air contaminants (TACs) and nuisance odors. The SMAQMD has adopted several attainment plans to achieve State and federal air quality standards and comply with CCAA and FCAAA requirements. The SMAQMD continuously monitors its progress in implementing attainment plans and must periodically report to ARB and EPA. The SMAQMD, in partnership with five air districts in the Sacramento Metropolitan Area, ARB, and the Sacramento Area Council of Governments (SACOG), periodically revises its attainment plans to reflect new conditions and requirements.

The SMAQMD’s primary means of implementing air quality plans is by adopting rules and regulations. The SMAQMD has also enhanced its participation in CEQA where it actively reviews and comments on prepared environmental documents. The SMAQMD has developed air quality-related CEQA guidance to be used in preparing air studies (SMAQMD, 2009).

Sacramento City Code

The City of Sacramento has a local city code (15.40.050 Control of dust and mud) that limits dust from construction operations via the following language:

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.

City of Sacramento 2030 General Plan

The City of Sacramento's 2030 General Plan is based on the promotion of "Smart Growth Principles" for future development and favors a more compact growth pattern for the city, emphasizing infill development and reuse of underutilized properties over expanding outward into undeveloped areas known as "greenfields." It focuses on intensifying development near transit and mixed-use activity centers and co-locating residential and employment uses to reduce private automobile use and encourage the use of mass transit, walking, bicycling, and alternative transportation modes. This would reduce fuel consumption and thereby air pollutant emissions. The following goals and policies from the proposed 2030 General Plan are relevant to air quality within the entire policy area.

Goal ER 6.1 Improved Air Quality. Improve the health and sustainability of the community through improved regional air quality and reduced greenhouse gas emissions that affect climate change.

Policy 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.

Policy 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.

Policy 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.

Policy 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.

Policy 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.

- Policy ER 6.1.11 Coordination with SMAQMD. The City shall coordinate with SMAQMD to ensure projects incorporate feasible mitigation measures if not already provided for through project design.
- Policy 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.

Applicable Mitigation Measures from the City of Sacramento 2030 General Plan

Applicable mitigation measures were not required or available with respect to Air Quality as evaluated in the 2030 General Plan MEIR.

Climate Change and GHG Regulatory Framework

State

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order was to reduce California's GHG emissions to: (1) 2000 levels by 2010; (2) 1990 levels by 2020; and (3) 80% below 1990 levels by 2050.

In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan (including market mechanisms), and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs State agencies to begin implementing AB 32, including the recommendations made by the State's Climate Action Team. CARB must adopt, no later than January 1, 2012, rules and regulations to implement the GHG emissions reductions.

Pursuant to AB 32, ARB adopted a Scoping Plan in 2008, outlining measures to meet the 2020 GHG reduction limits (CARB, 2008). To meet these goals, California must reduce its GHG emissions by 28 percent below projected 2020 business as usual emissions or about 15 percent from today's levels. The Scoping Plan estimates a reduction of 174 million metric tons of CO_{2e} from the transportation, energy, agriculture, forestry, and high global warming potential sections.

ARB has identified an implementation timeline for the GHG reduction strategies in the Scoping Plan. Some measures may require new legislation to implement, some will require subsidies, some have already been developed, and some will require additional effort to evaluate and quantify.

Senate Bill 97 and CEQA

In 2007, Senate Bill (SB) 97 was adopted to provide greater certainty to lead agencies that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. Pursuant to SB 97, the State's Natural Resources Agency adopted amendments to the State CEQA Guidelines to address analysis and mitigation of the potential effects of GHG emissions in CEQA documents and processes. These amendments became effective on March 18, 2010. Topics of the amendments include but are not limited to the following:

- Requiring a lead agency to make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project;
- Requiring a lead agency to consider the project's effect on GHG emissions in comparison to the existing setting, an exceedance of a significance threshold by the project, and the extent to which the project complies with adopted regulations or requirements among others, when assessing the significance of impacts from GHG emissions on the environment;
- Identifying types of suitable/applicable mitigation measures for GHG emissions; and
- Allowing project-specific environmental documents to tier from and/or incorporate by reference any existing programmatic review of GHG emissions, such as in a general plan, a long range development plan, or a separate plan to reduce GHG emissions.

Actions Taken by California Attorney General's Office

The California Attorney General (AG) has filed comment letters under CEQA about a number of proposed projects. The AG has also filed several complaints and obtained settlement agreements for CEQA documents covering general plans and individual programs that the AG found either failed to analyze GHG emissions or failed to provide adequate GHG mitigation. The AG's office has prepared a report that lists measures that local agencies should consider under CEQA to offset or reduce global warming impacts (California Department of Justice, 2011).

Local

As stated previously, the City of Sacramento Climate Action Plan was adopted on February 14, 2012, carrying out a primary implementation program outlined in the Sacramento 2030 General Plan. Based on the City's GHG inventory, the AB 32 reduction of 20 percent by 2020 would be achieved by a 15 percent reduction of citywide GHGs below 2005 levels by the year 2020. Throughout the Climate Action Plan, the City outlines strategies, implementation measures, and actions that would reduce GHG emissions from transportation and land use, energy consumption, water consumption, and solid waste sectors. Many of the actions contained within the Climate Action Plan were derived from policies and programs already evaluated and adopted as part of the City's 2030 General Plan.

5.1.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

Appendix G of the State CEQA Guidelines states that a project would have significant impacts related to air quality and/or GHG emissions if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is within non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people;
- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

In accordance with Appendix G of the CEQA Guidelines but specific to the proposed project, as explained in further detail below, the project would be considered to have significant impacts related to air quality and/or GHG emissions if it would:

- Result in construction emissions of NO_x above 85 pounds per day;
- Result in operational emissions of NO_x or ROG above 65 pounds per day;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in 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;
- Result in 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);
- Result in exposure of sensitive receptors to substantial pollutant concentrations;
- Result in TAC exposures that create a risk of 10 in one million for stationary sources or substantially increase the risk of exposure to TACs from mobile sources; or
- Impede the City or state efforts to meet AB32 standards for the reduction of greenhouse gas emissions.

Project-Specific Significance Thresholds

Criteria Pollutant Quantitative Thresholds

Due to the general nature of the Appendix G criteria, the SMAQMD has adopted the quantitative emission thresholds shown in Table 5.1-4.

For construction emissions, the SMAQMD requires that specific mitigation measures be employed if a project's emissions exceed the 85 pounds per day NO_x threshold. Also, if

construction would actively disturb more than 15 acres per day, then fugitive dust dispersion modeling is required to estimate the project’s contribution to ambient PM₁₀ concentrations. If the resulting PM₁₀ concentrations exceed more than five percent of the PM₁₀ 24 hour standard, then SMAQMD requires the implementation of fugitive dust measures.

Carbon Monoxide Concentrations

The SMAQMD has adopted the State ambient carbon monoxide (CO) standards of 20 parts per million (ppm) for the 1-hour average and 9 ppm for the 8-hour average as the significance thresholds for projects. A project that causes or contributes to exceedances of these State CO standards is considered to have a significant impact.

Table 5.1-4 SMAQMD Mass Emission Significance Thresholds – Construction and Operation		
Pollutant	Construction (pounds/day)	Operation (pounds/day)
Reactive Organic Gases (ROG)	None	65
Nitrogen Oxides (NO _x)	85	65
PM ₁₀	None*	None
PM _{2.5}	None*	None
Carbon Monoxide (CO)	None	Violation of a State ambient air quality standard for CO
<p>'None' means that no thresholds have been established by the SMAQMD (2009).</p> <p>*Although there is no PM₁₀ or PM_{2.5} mass emission threshold for construction, SMAQMD recommends implementation of basic emission control practices. If construction would actively disturb 15 or more acres per day, SMAQMD recommends dispersion modeling be used to determine whether the project would result in ambient PM₁₀ concentrations of five percent or more of the ambient standard.</p> <p>Source: URS Corporation, Draft Air Quality and Greenhouse Gas Technical Report for the Aspen 1- New Brighton Project Located in Sacramento, CA, October 6, 2011.</p>		

Toxic Air Contaminants

Toxic air contaminant (TAC) emissions from construction typically includes diesel particulate matter (DPM) exhaust from diesel equipment and naturally occurring asbestos (NOA) from earth disturbance. Each of these is discussed below.

The SMAQMD has not established a quantitative threshold of significance from construction-related TAC emissions. Consequently, a qualitative procedure to evaluate the significance of DPM emissions is used in this analysis as recommended by SMAQMD.

Naturally occurring asbestos (NOA) is commonly found in the soils of eastern Sacramento County. Construction activities have the potential to disturb soils containing NOA, releasing asbestos fibers into the atmosphere. The California Department of Conservation has prepared a report that examines the likelihood that NOA is present at various locations in eastern Sacramento County (California Department of Conservation, 2006). Using the California Department of Conservation report, this analysis examines whether the proposed project location is located in or near an area with NOA.

For operational emissions, SMAQMD has adopted significance thresholds for toxic air contaminants (TACs) emitted by mobile sources (SMAQMD 2011). The SMAQMD guidance

provides a methodology for the assessment and disclosure of potential cancer risk from DPM attributable to siting land uses adjacent to freeways and major roadways. For a mixed-use project such as the proposed project, a significant impact would occur if the project were located near roadways with traffic volumes that equal or exceed 100,000 vehicles per day.

Odors

According to the SMAQMD's CEQA guidance, odor impacts need to be examined when a new facility has the potential to generate odors or when a new project has the potential to be affected by existing odor sources (SMAQMD, 2009).

Cumulative Impact Significance Criteria

A project is considered to have a significance cumulative impact if it would exceed the criteria pollutant project level thresholds listed in Table 5.1-4 (SMAQMD, 2009).

GHGs

Neither the SMAQMD nor the City of Sacramento has developed guidance or thresholds for evaluating the significance of a project's GHG emissions. ARB adopted a Scoping Plan in 2008 to meet the requirements of AB32. This Plan outlines measures to meet the 2020 GHG reduction limits. To meet these goals, California must reduce its GHG emissions by 28 percent below projected 2020 business as usual emissions or about 15 percent from today's levels.

Method of Analysis

The following section discusses the methods utilized to determine the project's impacts.

Methodology for Evaluating Significance – Criteria Pollutants, Toxic Air Contaminants, and Odors

Criteria Pollutant Methodology – Construction

The project's construction emissions were calculated by first identifying the construction phases that would be required, along with the number and type of on-road and off-road construction equipment that would be required. Mass grading would occur during the first two years of construction. During mass grading, material would be imported to the project site from the Aspen 3 site, while channel construction would occur in Aspen 2 and construction of a retention basin would occur on the Mayhew property. That material imported from Aspen 3 would be used to regrade the project site and to develop residential, commercial, and school building pads. During construction years three through seven, fine site grading, trenching for utilities, and road and building construction would occur. A detailed description of construction activities and construction emissions is included in Appendix A of the *Air Quality and Greenhouse Gas Technical Report* (See Appendix F of this Draft EIR).

Mass grading would generate the majority of the construction related emissions, especially PM₁₀ emissions. Thus, the following analysis focuses on the project's emissions from mass grading. Two basic construction mass grade options are being considered for this project. The with conveyor belt option would transport material from Aspen 3 to the project site by conveyor belt, while the second option would transport that material from Aspen 3 to the project site by truck.

Information for each mass grade option was entered into the URBEMIS model, which was used to estimate construction emissions (URBEMIS, 2006).

Because construction activity would disturb more than 15 acres per day, fugitive dust dispersion modeling was conducted to determine whether the project would exceed five percent of the ambient PM₁₀ standards. PM₁₀ dispersion modeling results are included in Appendix A of the *Air Quality and Greenhouse Gas Technical Report*.

Criteria Pollutant Methodology – Operations

A combination of air quality assessment tools were used to estimate operational criteria emissions for the proposed project with and without the elementary school. The URBEMIS2007 model was used to estimate operational emissions. Criteria pollutant emissions were estimated for ROG and NO_x because these are the pollutants for which the SMAQMD has established operational significance thresholds.

Carbon Monoxide Methodology

The SMAQMD states that a project will have a less-than-significant impact to air quality for local CO if:

1. Traffic generated by the project would not result in deterioration of intersection level of service (LOS) to LOS E or F; or
2. The project would not contribute additional traffic to an intersection that already operates at LOS E or F (SMAQMD 2009).

If the first tier of CO screening criteria is not met, then the second tier of screening shall be examined. The traffic report for this study shows that the first tier CO screening criteria would not be met (Dowling, 2011). This is because the project would contribute traffic to existing intersections currently operating at LOS E and F.

For the second tier of CO screening criteria, all of the following three criteria must be met for the project to result in a less than significant air quality impact for local CO:

1. The project would not result in an affected intersection experiencing more than 31,600 vehicles per hour;
2. The project would not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway, or other locations where horizontal or vertical mixing of air would be substantially limited; and
3. The mix of vehicle types at the intersection is not anticipated to be substantially different from the County average (as identified by the EMFAC or URBEMIS models).

Estimates for nearby intersections affected by project traffic shown worst-case hourly volumes approaching the 31,600 vehicles per hour threshold. Consequently, the project would not meet the first criterion listed above. Therefore, air quality modeling is used to evaluate the project's effect on ambient CO concentrations.

Odor Methodology

The CEQA threshold for odors requires that records be reviewed for complaint records for the odor source in question. Distance and wind direction should be evaluated if complaint records indicate a potential odor impact.

To assess potential odor impacts, a public records request was submitted to the SMAQMD. The SMAQMD report several odor complaints for the proposed project area for the last ten years (Jester, J., 2011). Consequently, odors have the potential to cause a significant impact and are evaluated in more detail in the impact discussion.

Toxic Air Contaminants and Health Risk Methodology

Naturally Occurring Asbestos (NOA)

The proposed project is evaluated for its potential to release NOA by comparing the project to a NOA map for Sacramento County. That map shows areas that are most and least likely to contain NOA (California Department of Conservation, 2006).

Diesel Particulate Matter – Construction

For construction, SMAQMD recommends that exposure be evaluated qualitatively using a number of factors, including types of off-site receptors and their proximity to construction activity, duration of construction period, quantity and types of diesel powered equipment, number of hours equipment would be operated per day, location of equipment staging area, predominant wind direction, and amount of on-site diesel exhaust.

Diesel Particulate Matter – Operational

Cancer and non-cancer risks for DPM during project operation were evaluated using SMAQMD's guidance (SMAQMD 2011). SMAQMD's screening procedure applies for projects that would place residences within 500 feet of roadways having average daily traffic volumes in excess of 100,000 vehicles.

GHG Emissions Methodology

Although SMAQMD has not established a numerical significance threshold for GHG emissions, the State CEQA guidelines require that GHG emissions be estimated. Consequently, GHG emissions were estimated.

GHG emissions were estimated for carbon dioxide (CO₂) and, where emission factors were available, for methane (CH₄) and nitrous oxide (N₂O). Emissions for each pollutant were then multiplied by their respective global warming potential and summed to obtain carbon dioxide equivalence (CO₂e). Global warming potential is a relative measure of how much heat each greenhouse traps in the atmosphere. The following global warming potential values were used: CO₂ = 1, CH₄ = 21, and N₂O = 310 (California Climate Action Registry, 2009).

For this analysis, operational GHG emissions were estimated for construction, and for 2020 buildout and 2030 cumulative conditions. Emissions estimates were made using a combination of the URBEMIS2007 and BGM models (URBEMIS, 2006; BAAQMD, 2010). Emissions were estimated for business as usual (BAU) conditions and for mitigated conditions.

The BAU condition represents unmitigated emissions. BAU represents emissions that do not account for any project design features or State GHG reduction measures described in the California Air Resources Board's Scoping Plan (ARB, 2008). The "With Project Design" alternative represents mitigated emissions and accounts for State GHG reduction measures, project design measures, and measures included in the *Air Quality Mitigation Plan (AQMP) for the Aspen 1-New Brighton Project* (See Appendix B of Appendix F of this Draft EIR).

Project-Specific Impacts and Mitigation Measures

5.1-1 Impacts related to a short-term increase in construction-generated NO_x emissions.

Nitrogen oxides are ozone precursors, and as such could contribute to the creation of smog within the SVAB. Construction-generated emissions of NO_x are short-term and of temporary duration, lasting only as long as construction activities occur, but possess the potential to represent a significant air quality impact. The construction and development of the proposed land uses would result in the temporary generation of emissions resulting from vehicles associated with site grading and excavation, road paving, building construction, worker trips, and the movement of construction equipment.

Two construction options were evaluated – a conveyor belt option and a without conveyor belt option. Under the conveyor belt option, a belt would be used to transfer material from the Aspen 3 and Mayhew areas to the project site. Under the second option, in lieu of a conveyor belt, all material would be transported by truck from Aspen 3 and Mayhew to the project site.

Table 5.1-5 shows NO_x emission estimates associated with construction. Unmitigated construction emissions would exceed SMAQMD's NO_x threshold level of 85 pounds per day during the first two years of construction for both the with conveyor belt and without conveyor belt options.

These emissions are primarily associated with earth moving and rough grading. SMAQMD has not established construction-related mass emission thresholds for ROG, PM₁₀, or PM_{2.5}. Consequently, they are not included in Table 5.1-5, although they are included in Appendix A of the *Air Quality and Greenhouse Gas Technical Report*.

Because construction emissions would exceed SMAQMD's NO_x threshold level of 85 pounds per day during the first two years of construction for both options, the project's impact would be **potentially significant**.

Table 5.1-5 Project Construction NO_x Emissions (pounds per day)				
	With Conveyor Belt		Without Conveyor Belt	
	Unmitigated	Mitigated	Unmitigated	Mitigated
2012	485.4	388.3	467.9	374.3
2013	490.1	392.1	472.2	377.8
2014	94.8	75.8	94.8	75.8
2015	34.6	27.7	34.6	27.7
2016	31.2	25.0	31.2	25.0
2017	28.3	22.7	28.3	22.7
2018	25.7	20.5	25.7	20.5
SMAQMD Significance Thresholds	85	85	85	85
Exceed Thresholds?	Yes	Yes	Yes	Yes
Note: Detailed emission estimate results are included in Appendix A of the <i>Air Quality and GHG Technical Report</i> .				
Source: URS Corporation, <i>Draft Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011</i> .				

Mitigation Measure(s)

The following construction-related mitigation measures would reduce the project's construction emissions of NO_x and PM₁₀ dust emissions. The list includes mitigation measures recommended in the Sacramento City Code, the City of Sacramento 2030 General Plan MEIR, and in the SMAQMD's CEQA Handbook (SMAQMD, 2009). Implementation of these measures, which includes an emissions offset fee, would reduce NO_x emissions to less than SMAQMD's significance threshold, reducing the impact to a *less than significant* level.

5.1-1(a) *Prior to the issuance of a grading permit, the applicant shall incorporate the following mitigation measures into the construction contract documents, which shall be submitted for review and approval by the City Engineer:*

- *Water all exposed surfaces with adequate frequency for continued moist soil. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. However, do not overwater to the extent that sediment flows off the site;*
- *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 wheel washers for all exiting trucks, or wash off all trucks and equipment when leaving the site.*

- *Treat site accesses to a distance of 100 feet from the paved road edge 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.*
- *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);*
- *Suspend excavation, grading, and/or demolition activity within wind speeds exceed 20 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.*
- *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 with 48 hours. The phone number of the District shall also be visible to ensure compliance.*
- *Conduct a visual survey of all in-operation equipment at least weekly. 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 supersede other SMAQMD or State rules or regulations.*

5.1-1(b) *Prior to the issuance of a grading permit, the applicant shall submit a SMAQMD-approved plan, which demonstrates that heavy duty off-road vehicles used in construction of the project achieve a project-wide fleet-average 20 percent NO_x reduction and 40 percent particulate reduction compared to the most recent CARB fleet average at the time of construction. While the required reductions are feasible when compared to existing fleet averages, it may not be feasible to achieve such reductions in future years once Tier IV engines begin replacing older equipment. At that time, the plan shall be revised to require that the reductions be based on a comparison to the current (2011) fleet average.*

5.1-1(c) *Prior to the issuance of a grading permit, the applicant shall submit to the City of Sacramento 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 or fuel throughput 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(d) *During construction, the project contractor 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 City of Sacramento shall be notified within 48 hours of identification of non-compliant equipment.*

5.1-1(e) *Prior to the issuance of a grading permit, the project applicant shall provide a construction mitigation fee to the SMAQMD sufficient to offset project emissions of NO_x above 85 pounds per day. The amount of the fee shall be based on updated construction scheduling and equipment lists, and shall be calculated using the SMAQMD method of estimating excess emissions. The current price of NO_x construction offsets calculated by SMAQMD is \$16,640 per ton. In addition, the project applicant shall ensure that its contractors maintain detailed construction equipment use records to ensure accurate calculation of fees.*

5.1-2 Impacts related to an increase in PM₁₀ and PM_{2.5} concentrations during construction.

During the first two years of construction of the project, mass grading activities would actively disturb more than 15 acres per day. SMAQMD's CEQA guidance requires that dispersion modeling be used to determine if the project would result in ambient PM₁₀ concentrations that exceed 2.5 µg/m³ (which equals five percent of the State 24-hour PM₁₀ standard of 50 µg/m³) averaged over 24 hours at nearby sensitive receptors. Ambient PM₁₀ concentrations were estimated using the AERMOD model with meteorological data supplied by SMAQMD. The detailed AERMOD assumptions and results are included in Appendix A of the *Air Quality and Greenhouse Gas Technical Report*. The modeling results indicated that even with implementation of the basic and enhanced fugitive PM₁₀ dust and exhaust control practices identified in Impact 5.1-1 above, construction of the project would result in PM₁₀ concentrations that exceed 2.5 µg/m³. Consequently, during the first two years of construction, the project would have **significant** impacts related to PM₁₀ and PM_{2.5}.

Mitigation Measure(s)

Implementation of Mitigation Measures 5.1-1(a) through 5.1-1(e) would reduce the project's emissions of PM₁₀ and PM_{2.5}; however, the emissions would still exceed the significance threshold and the impact would remain *significant and unavoidable*.

5.1-2 *Implement Mitigation Measures 5.1-1(a) through 5.1-1(e).*

5.1-3 Impacts related to an increase in health risks from diesel exhaust during construction.

The majority of the project’s diesel particulate matter (DPM) exhaust would be generated during the first two years of project construction, when mass grading operations would be used to move material from the Aspen 3 area to the project site (See Table 5.1-6). The two construction options for the project – a conveyor belt option and a without conveyor belt option – were evaluated for their potential to generate DPM. Under the conveyor belt option, a belt would be used to transfer material from the Aspen 3 and Mayhew areas to the project site. Under the second option, in lieu of a conveyor belt, all material would be transported by truck from Aspen 3 and Mayhew to the project site.

Year	With Conveyor Belt		Without Conveyor Belt	
	Unmitigated	Mitigated	Unmitigated	Mitigated
2012	16.2	8.9	16.5	9.1
2013	16.7	9.2	17.1	9.4
2014	4.9	2.7	4.9	2.7
2015	2.0	1.1	2.0	1.1
2016	1.8	1.0	1.8	1.0
2017	1.6	0.9	1.6	0.9
2018	1.5	0.8	1.5	0.8

Source: URS Corporation, Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011.

As Table 5.1-6 indicates, the proposed project’s DPM emissions would be highest during the first two years of construction and would decrease substantially in subsequent years. Mitigated DPM emissions assume a 45 percent reduction from uncontrolled levels based on the mitigation measures required in Impact 5.1-1, above. However, if Mitigation Measures 5.1-1(a) through 5.1-1(e) were not implemented, the project’s impact related to health risks from diesel exhaust would be **potentially significant**.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

5.1-3 *Implement Mitigation Measures 5.1-1(a) through 5.1-1(e).*

5.1-4 Impacts related to an increase in health risks from naturally occurring asbestos emissions.

The proposed project site is located in Sacramento County, an area identified as having soils containing naturally occurring asbestos (NOA). Therefore, during construction, the potential to release of NOA emissions exists. However, the project site is located in an area of Sacramento County that is designated as not containing NOA. In addition, the project’s topsoil has already been mined. Consequently, the project would be unlikely to release NOA during construction and the impact would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
 None required.

5.1-5 Impacts related to an increase in ROG and NO_x emissions during project operation.

Table 5.1-7 shows ROG and NO_x emissions for project buildout conditions (2020) with and without the elementary school. Unmitigated ROG emissions would exceed SMAQMD's significance threshold of 65 ppd. NO_x emissions would be less than SMAQMD's significance threshold.

Table 5.1-7 Project Buildout Emissions (2020)				
	With Elementary School		Without Elementary School	
	ROG (ppd)	NO_x (ppd)	ROG (ppd)	NO_x (ppd)
Unmitigated	164.9	64.3	160.7	64.0
Mitigated	151.1	52.7	146.5	52.3

ppd = pounds per day

Notes: Detailed emission estimates included in Appendix A of the *Air Quality and GHG Technical Report*. Mitigated NO_x emissions also account for air pollutant interception and absorption and air pollutants avoided (Vargas, K, 2011).

Source: URS Corporation, *Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011.*

Table 5.1-8 shows ROG and NO_x emissions for project cumulative conditions (2030) with and without the elementary school. Although lower than that of buildout conditions, unmitigated ROG emissions would still exceed SMAQMD's significance threshold of 65 ppd. NO_x emissions would be less than SMAQMD's significance threshold.

Table 5.1-8 Project Cumulative Emissions (2030)				
	With Elementary School		Without Elementary School	
	ROG (ppd)	NO_x (ppd)	ROG (ppd)	NO_x (ppd)
Unmitigated	138.6	40.1	137.0	39.7
Mitigated	126.6	29.1	124.5	28.7

ppd = pounds per day

Notes: Detailed emission estimates included in Appendix A of the *Air Quality and GHG Technical Report*. Mitigated NO_x emissions also account for air pollutant interception and absorption and air pollutants avoided (Vargas, K, 2011).

Source: URS Corporation, *Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011.*

General Plan Policy ER 6.1.3 requires that projects exceeding the SMAQMD ROG or NO_x threshold incorporate design or operational features that reduce emissions by at least 15 percent as compared to without project design features. The SMAQMD recommends that an AQMP be implemented for all projects that exceed the operational threshold of 65 pounds per day for ROG or NO_x to clearly demonstrate that emissions are reduced by a minimum of 15 percent from baseline.

In compliance with both the 2030 General Plan policies and SMAQMD regulations, the proposed project has developed an AQMP to define the processes by which emissions of ROG would be reduced by 15 percent or more. The full text of the AQMP is included as Appendix B of the *Air Quality and Greenhouse Gas Technical Report* (See Appendix F of this Draft EIR).

The AQMP includes design features that would reduce ROG and NO_x emissions including, but not limited to, the following: installation of energy star roofs, prohibition of fireplaces and wood stoves; incorporation of a pedestrian network; incorporation of multiple and direct street routing; and inclusion of an urban farm. In addition, the project would include a dense urban forest of 7,500 trees of more than 50 species that would intercept and absorb several pollutants, including ozone, NO_x, PM₁₀, and PM_{2.5}. By reducing summer ground level temperatures, the urban forest would also avoid the generation of air pollutants through reductions in natural gas and electricity consumption.

Via the design features, the proposed project would reduce ROG and NO_x emissions by 38.3 percent, which reduces NO_x emissions below the threshold of 65 ppd. However, reducing the ROG emissions by 38.3 percent does not reduce ROG emissions to below the threshold of 65 ppd (See Tables 5.1-7 and 5.1-8). Even after applying mitigation measures, the project's emissions would still exceed SMAQMD's ROG significance threshold, and the project's impact would be **significant**.

Mitigation Measure(s)

Implementation of the following mitigation measure, which requires compliance with the project's AQMP, would reduce the project's ROG and NO_x emissions; however, ROG emissions would still exceed the significance threshold and the impact would remain *significant and unavoidable*.

5.1-5 *Prior to final map approval, the final map shall include implementation of the following mitigation measures, which are detailed within the AQMP for the proposed project, for review and approval by the Planning Department:*

- *Incorporation of non-residential bike parking;*
- *Incorporation of non-residential "end of trip" facilities (showers, lockers);*
- *Incorporation of long term bike parking at apartments and condominiums;*
- *Location of the project within ½ mile of Class 1 or 2 bike lane;*
- *Incorporation of a pedestrian network;*
- *Removal of pedestrian barriers;*
- *Incorporation of a bus shelter for planned transit service;*
- *Incorporation of traffic calming measures;*
- *Incorporation of a pedestrian pathway through parking;*
- *Incorporation of off-street parking;*
- *Orientation toward planning transit, bike, pedestrian corridors;*
- *Inclusion of high-density residential development;*
- *Incorporation of multiple and direct street routing;*
- *Inclusion of a mixed-use component;*

- *Prohibition of fireplaces and wood stoves;*
- *Installation of energy star roofs;*
- *Provision of shade and/or use of light-colored/high-albedo materials for at least 30 percent of the site's non-roof impervious surfaces;*
- *Inclusion of permanent TMA membership and funding requirement;*
- *Incorporation of walkable communities;*
- *Incorporation of a transit corridor;*
- *Incorporation of an urban farm; and*
- *Incorporation of an urban forest.*

5.1-6 Impacts related to an increase in CO concentrations causing a violation of the ambient CO standards.

Implementation of the proposed project could result in operational CO concentrations that exceed the 1-hour State ambient air quality standard of 20.0 ppm or the 8-hour State ambient standard of 9 ppm.

Motor vehicles are the primary source of CO. The proposed project would result in a net increase in traffic, especially in the immediate vicinity of the project. According to the project traffic study, the project would increase traffic volumes at intersections already operating at LOS E or F. Consequently, the project does not meet SMAQMD's first CO screening criteria. In addition, the project does not meet SMAQMD's second CO screening criteria because the project traffic report contains no information as to whether the project fleet mix would differ substantially from the County average.

Consequently, CO modeling was conducted for intersections in the project vicinity having a combination of the worst case LOS and highest traffic volumes. These included the South Watt Avenue/Folsom Blvd. intersection and the South Watt Avenue/Jackson Highway intersection. Table 5.1-9 shows the modeling results for these two intersections under existing plus project and cumulative plus project conditions.

For both intersections, under both conditions, the modeling results indicate that the project would not cause or contribute to violations of the State or federal ambient CO standards. Consequently, the project's impact related to an increase in CO concentrations is ***less than significant***, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.1-7 Impacts related to the creation of objectionable odors.

Implementation of the proposed project would expose new residents to existing odor sources. Four potential odor sources in the vicinity of the project site could potentially affect the project's residents (See Figure 5.1-2).

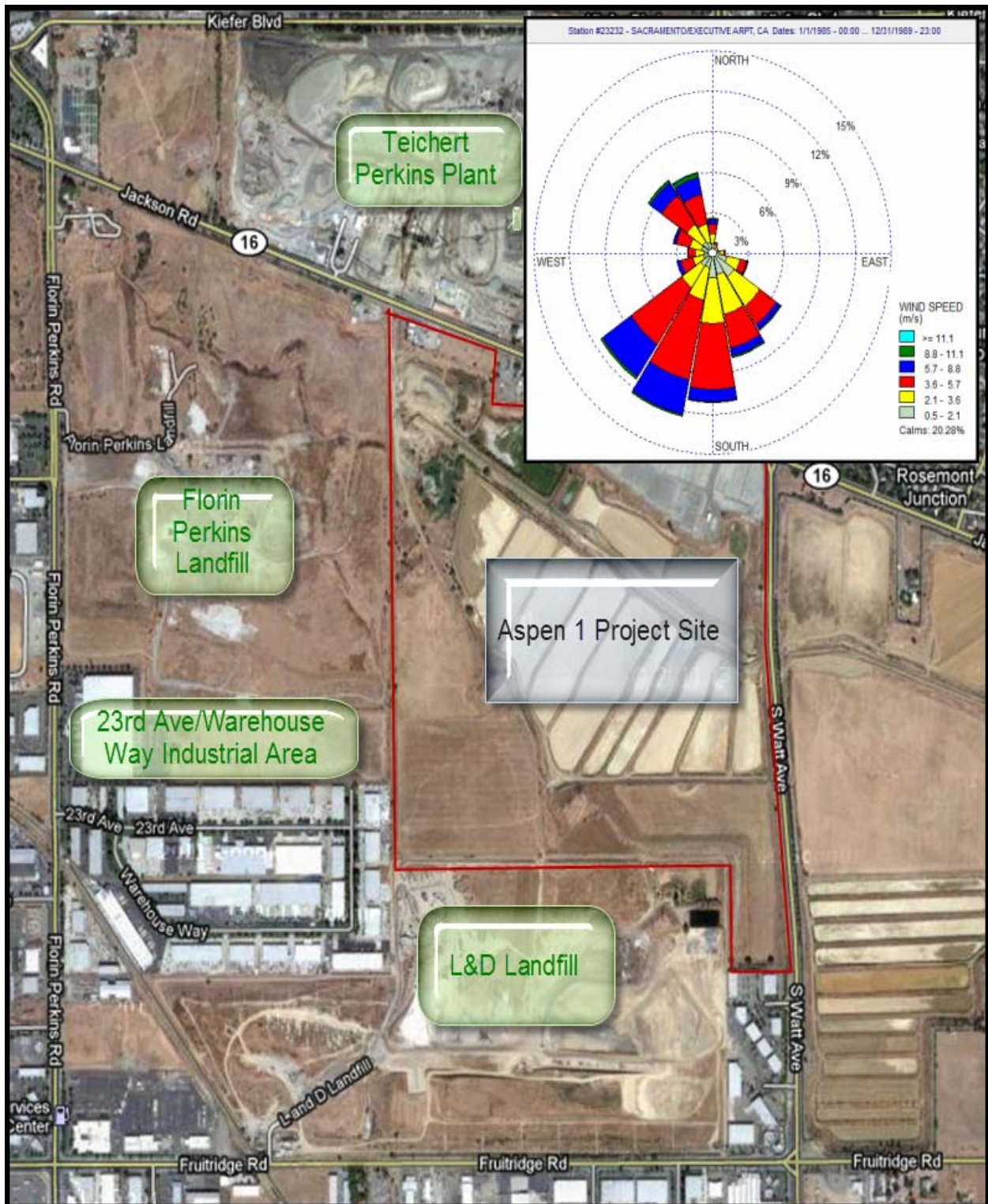
**Table 5.1-9
 CO Modeling Results (parts per million)**

Receptor	Existing Plus Project				Cumulative Plus Project			
	S. Watt/ Jackson Road		S. Watt/Jackson Hwy		S. Watt/ Folsom Blvd		S. Watt/Jackson Hwy	
	1-hour	8-hour	1-hour	8-hour	1-hour	8-hour	1-hour	8-hour
1	4.2	3.4	3.7	3.0	2.8	2.4	2.8	2.4
2	4.2	3.4	3.8	3.1	2.8	2.4	2.8	2.4
3	4.1	3.3	3.5	2.9	2.8	2.4	2.8	2.4
4	4.1	3.3	3.4	2.8	2.8	2.4	2.8	2.4
5	N/A	N/A	3.9	3.2	N/A	N/A	2.8	2.4
CO Standard	9.0	20.0	9.0	20.0	9.0	20.0	9.0	20.0
Exceed Standard?	No	No	No	No	No	No	No	No

Notes: CO modeling results assume a maximum 1-hour background concentration of 2.8, a maximum 8-hour background concentration of 2.4 ppm, and a persistence factor of 0.7. Background concentrations based on maximum monitoring concentrations. Persistence factors and related modeling assumptions based on Caltrans Modeling Protocol (Garza, V.J., et.al., 1997). CO Modeling results in Appendix A of the *Air Quality and GHG Technical Report*.

Source: URS Corporation, *Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011.*

**Figure 5.1-2
 Odor Sources near the Proposed Project Site**



Source: URS Corporation, Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011.

These odor sources include the following:

- Teichert's Perkins plant, located at 8760 Kiefer Boulevard, just north of the project;
- The Florin Perkins Landfill, located at 4201 Florin-Perkins Road, just west of the project;
- The L and D Landfill, located at 8635 Fruitridge Road, southwest of the project; and
- The 23rd Avenue/Warehouse Way Industrial area, located southwest of the project.

Each of these potential odor sources are shown in Figure 5.1-2, along with a wind rose for the project. The wind rose shows the average wind direction and wind speed based on five years of hourly data. A larger version of the wind rose is also shown in Figure 5.1-3.

Over the most recent three years (2008 through 2010), 13 odor complaints were received by SMAQMD for the Teichert Perkins plant, although the locations of those complaints were not identified. One additional odor complaint was received for odors emanating from the 23rd Avenue/Warehouse Industrial Area. Odor complaints were not received during the past three years for the two landfills near the project site.

Figure 5.1-2 shows that winds blow from the north and northwest towards the project site from the direction of the Teichert Perkins plant approximately 18 percent of the time. The figure also shows that the Florin-Perkins landfill does not appear to be upwind of the project site, because winds rarely blow from the west. However, the 23rd Avenue/Warehouse Way Industrial Area and the L and D Landfill are located upwind of the project site. Consequently, odors from these locations would likely be detectable at residences. The potential for odor detection at residences will be reduced somewhat because of the distance from the industrial area and landfill to residences. This is because open space and the urban farm are located at the far southwestern corner of the project. However, although these land uses will provide a buffer zone, odors could still be detectable at residences. Feasible mitigation measures are not available to reduce these odor impacts. Consequently, the proposed project would have a **significant and unavoidable** impact.

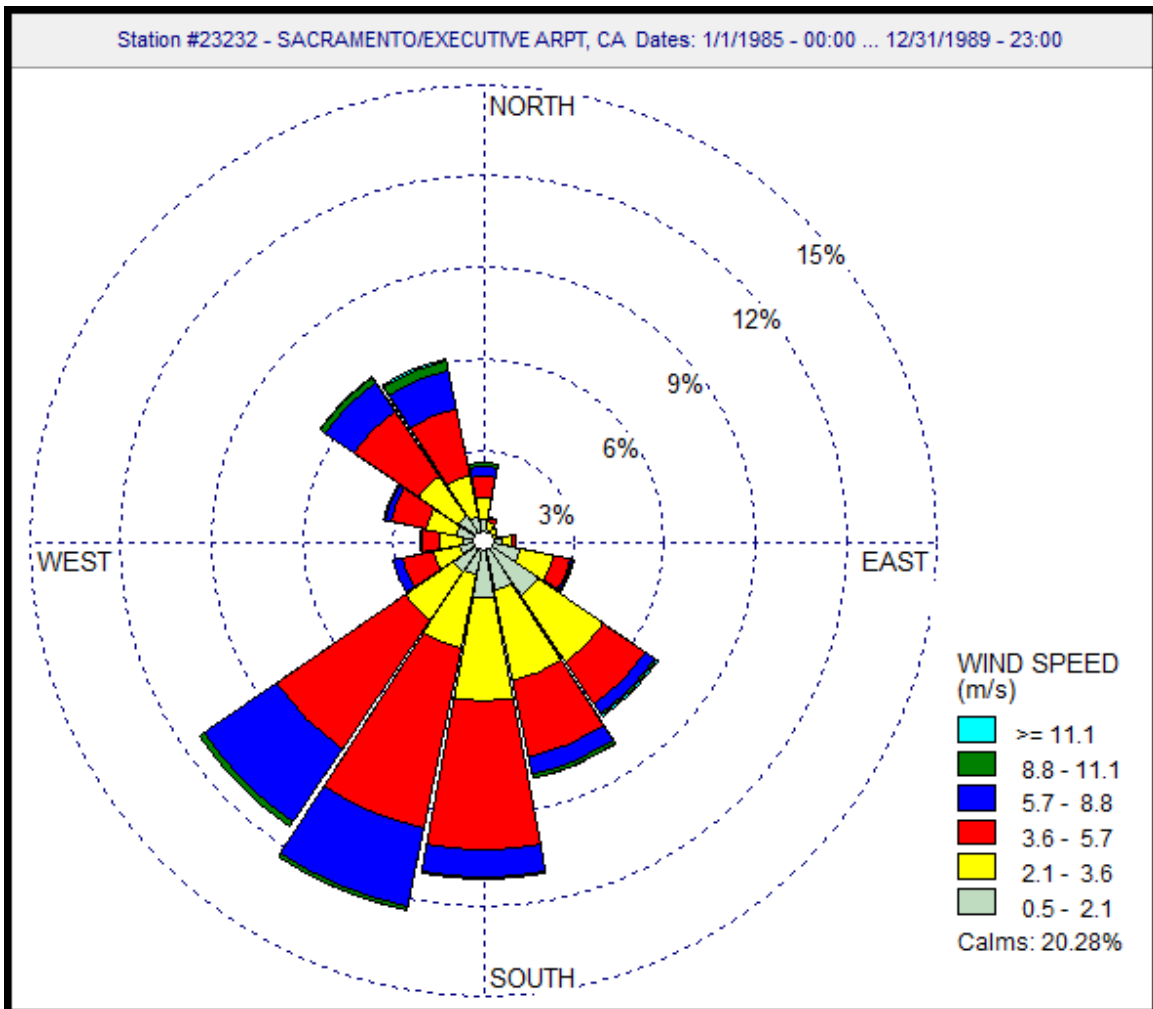
Mitigation Measure(s)

None feasible.

5.1-8 Impacts related to the creation of health risks from exposure to DPM.

The California Air Resources Board (CARB) indicates that one of the highest public health priorities is the reduction of diesel particulate matter (DPM) generated by vehicles on California's highways, because DPM poses a large health risk. Other potential toxic air contaminant (TAC) generators within the City of Sacramento are specific types of facilities such as dry cleaners, gas stations, and chrome plating facilities, and are the focus of CARB's control efforts. CARB has made specific recommendations with respect to considering existing sensitive uses when siting new TAC-emitting facilities or with respect to TAC-emitting sources when siting sensitive receptors.

Figure 5.1-3
Wind Rose for the Project Vicinity



Source: URS Corporation, Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011.

Operation of the proposed project does not include land uses that have the potential to emit TAC in quantities that would represent an adverse health impacts to nearby sensitive land uses. Therefore, the site was not evaluated as a TAC source.

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. For land uses within 500 feet of a freeway, CARB recommends that a site-specific health risk assessment (HRA) be performed to accurately evaluate potential health risks. 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 near major roadways (SMAQMD 2011). The methodology provides a mechanism that shows the relationship between potential cancer risk from DPM exposure and distance from major roadways.

The closest major roadways to the proposed project are Jackson Highway, which serves as the northern border for the project, and South Watt Avenue, which serves as the project's eastern border. Several Aspen 1-New Brighton residences would be located within 500 feet of Jackson Highway or South Watt Avenue. Table 5.1-10 shows the average daily traffic volumes under cumulative, cumulative plus project (includes school), and cumulative plus no school alternative for the road segments adjacent to the project.

Roadway	Segment	Cumulative (ADT)	Cumulative Plus Project Including School (ADT)	Cumulative Plus No School Alternative (ADT)
South Watt Ave.	Jackson Road to Fruitridge Road	48,311	51,515	51,292
Jackson Road	E. Florin Perkins to South Watt Ave.	46,953	50,325	50,405

Source: DKS Associates, 2011.

As indicated by the SMAQMD's guidance, no further roadway related air quality analysis is recommended if roadways have average daily traffic volumes less than 100,000. As shown in Table 5.1-10, traffic volumes would be less than 100,000 for all three cumulative scenarios on both road segments that are adjacent to the project. Consequently, under SMAQMD's guidance, a detailed HRA is not required for the project. Thus, emissions generated by traffic on roads adjacent to the project would not pose a significant health risk to residents of the project site and the project's impact would be **less than significant**. Consequently, and the project would not create impacts related to DPM outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.1-9 Cumulative impacts related to an increase in ROG and NO_x emissions during project operation.

The proposed project would result in a net increase in ROG and NO_x emissions. As with project-level impacts related to an increase in ROG and NO_x emissions during project operation, the project's cumulative ROG emissions would exceed the SMAQMD's significance thresholds (See Table 5.1-8), which the SMAQMD uses to evaluate both project-level and cumulative impacts. Therefore, the project's impact would be **significant**.

Mitigation Measure(s)

Compliance with the project's AQMP would reduce the project's ROG and NO_x emissions; however, ROG emissions would still exceed the significance threshold and the cumulative impact would remain *significant and unavoidable*.

5.1-9 *Implement Mitigation Measure 5.1-3.*

5.1-10 Cumulative impacts related to an increase in CO concentrations causing a violation of the ambient CO standards.

The proposed project would not cause, or contribute to, a violation of the State or federal CO ambient air quality standards under cumulative conditions, as indicated in Table 5.1-9. Therefore, the project's impact would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.1-11 Cumulative impacts related to an increase in CO₂e emissions.

The construction and operation of the Aspen 1-New Brighton project and all aspects of the growth proposed under the City of Sacramento 2030 General Plan will result in the emission of GHGs. As indicated in the 2030 General Plan MEIR, future development within the City of Sacramento will be required to comply with AB 32, and with the Sacramento Area Council of Governments (SACOG) 2035 Metropolitan Transportation Plan (MTP).

Table 5.1-11 shows the project's construction-related GHG emissions for the "with-conveyor belt" and "without conveyor belt" options. The CO₂e emissions associated with these two construction alternatives would be very similar.

Table 5.1-12 shows the project's operational emissions at buildout without any reductions (business as usual conditions) and with emission reductions (with project design features). As presented in the table, when construction emissions are amortized over 50 years, emissions would equal 426 metric tons CO₂e per year. The project's GHG emissions would be 36.7 percent lower in 2020 with project design features as compared to under business as usual conditions. Detailed calculations of the reductions are included in Appendix C of the *Air Quality and Greenhouse Gas Technical Report*.

Year	With Belt	Without Belt
2012	2,752	2,800
2013	4,228	4,261
2014	1,326	1,326
2015	3,217	3,217
2016	3,245	3,245
2017	3,233	3,233
2018	3,232	3,232
Average	3,033	3,045

Notes: Emissions estimated using URBEMIS-2007 model. Detailed URBEMIS modeling results in Appendix A of the *Air Quality and GHG Technical Report*.

Source: URS Corporation, *Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011*.

	Business as Usual (BAU)	With Project Design	Percent Reduction
Transportation	18,237.4	9,464.00	48.1%
Area Source	11.7	11.70	0.0%
Electricity	2,253.1	2,230.60	1.0%
Natural Gas	2,171.7	2,149.90	1.0%
Water & Wastewater	213.8	192.45	10.0%
Solid Waste	897.9	897.94	0.0%
Agriculture	50.2	50.22	0.0%
Sequestration	N/A	-161.50	-
Construction (Amortized)	426.0	426.00	0.0%
Total	24,261.8	15,261.3	36.7%

Notes: Detailed emission estimates included in Appendix C of the *Air Quality and GHG Technical Report*.

Source: URS Corporation, *Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011*.

Table 5.1-13 shows GHG emissions under 2030 cumulative conditions. By 2030, the project would achieve a 43 percent GHG reduction as compared to business as usual conditions. As compared to 2020, 2030 emissions are lower for two primary reasons – transportation and carbon sequestration. Transportation emissions are lower because the project would generate fewer trips in 2030 as compared to 2020 (DKS Associates, 2011). In addition, by 2030, the project’s trees would be larger, resulting in more sequestered carbon.

**Table 5.1-13
 Comparison of Operational GHG Emissions Under
 Cumulative Conditions 2030 (metric tons CO₂e/year)**

	Business as Usual (BAU)	With Project Design	Percent Reduction
Transportation	16,750.6	7,878.2	53.0%
Area Source	11.7	11.7	0.0%
Electricity	2,253.1	2,027.8	1.0%
Natural Gas	2,171.7	2,150.0	1.0%
Water & Wastewater	207.0	186.3	10.0%
Solid Waste	898.0	898.0	0.0%
Agriculture	50.2	50.2	0.0%
Sequestration	N/A	-646.0	0.0%
Construction (Amortized)	426.0	426.0	0.0%
Total	22,768.3	12,982.2	43.0%

Notes: Detailed emission estimates included in Appendix C of the *Air Quality and GHG Technical Report*.

Source: URS Corporation, *Air Quality and Greenhouse Gas Technical Report for the Aspen 1-New Brighton Project Located in Sacramento, CA, October 6, 2011*.

GHG emissions that could be generated by development consistent with the 2030 General Plan were identified and considered in detail in the MEIR. The land uses that would be developed under the proposed project would not change from the land uses assumed for the project site in the 2030 General Plan. Therefore, the GHG emissions generated by the proposed project have already been accounted for in the MEIR analysis. While the proposed project would result in a net increase in GHG emissions, the project would not result in GHG emissions beyond those already considered in the MEIR. In addition, with incorporation of the project design features and additional mitigation measures, the project's predicted emissions would be reduced by 29 percent and the project, therefore, would be in compliance with the AB 32 reduction requirements.

Furthermore, the proposed project is consistent with the long-range planning for the urban environment in the City because the project focuses on a reduction in vehicle miles traveled (VMT) by including a site plan that encourages bicycling and walking, provides residences and businesses with close access to local produce, places services close to residences, and includes development of an urban forest. The proposed project would not have any additional significant effect related to compliance with GHG plans and regulations that was not addressed as a significant effect in the 2030 General Plan MEIR. Therefore, the project's cumulative impact related to an increase in CO₂e emissions would be ***less than significant***.

Mitigation Measure(s)

None required.

However, it should be noted that the Special Planning District (SPD) that would be approved in conjunction with the project includes a requirement that the project be consistent with the Planned Unit Development (PUD) Guidelines that were prepared for the project. The project design features that result in the business as usual emission reductions described above are listed in the PUD Guidelines. In addition, Mitigation

Measure 5.1-5 requires implementation of the AQMP, which includes design features that result in emission reductions.

5.1-12 Cumulative impacts related to construction and operation of the proposed project conflicting with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

Construction and operation of the proposed project combined with all aspects of growth proposed under the City of Sacramento General Plan would result in the emission of GHGs. As indicated in the 2030 General Plan MEIR, future development within the City of Sacramento will be required to comply with AB 32 and with the SACOG 2035 MTP.

The 2035 MTP is anticipated to meet the AB 32 goal of reaching 1990 transportation emissions by 2020. However, the City will need to reduce emissions in other planning areas for the City as a whole to meet AB 32 goals. As discussed previously, the City is anticipating an increase in GHG emissions without the incorporation of reduction measures. The 2030 General Plan MEIR concluded that because the actual effectiveness of all feasible policies and programs included in the 2030 General Plan to avoid and reduce GHG emissions is unknown, the City, under the 2030 General Plan, may not comply with AB 32.

The proposed project must comply with the 2030 General Plan policies and measures for the reduction of GHGs to comply with the 2030 MTP and AB 32. Because the traffic from the proposed project was incorporated into the 2035 MTP, and the 2035 MTP is anticipated to meet the goals of AB 32, the proposed project would comply with the 2035 MTP. AB 32 requires an approximate 29 percent reduction from existing emissions on a Statewide level in order to achieve the goal of reducing GHG emissions to 1990 levels by 2020. In order for this to occur, the existing and future operations of the City, as well as individual land uses, must reduce their emissions accordingly.

The proposed project was addressed in the MEIR for the 2030 General Plan. Therefore, the GHG emissions increase that would occur with implementation of the project has been accounted for in the General Plan. When compared to business as usual conditions, the project would result in a buildout (2020) emission reduction of 29 percent and a cumulative (2030) emission reduction of 35 percent. Consequently, the project would meet the AB 32 goal and the City's General Plan goals and, therefore, the project would not conflict with applicable plans, policies, and regulations adopted by the City of Sacramento or the State of California for the purpose of reducing GHG emissions.

Although the MEIR determined that GHG emissions generated by the development anticipated by the 2030 General Plan would be cumulatively considerable, the proposed project would not contribute to cumulative impacts beyond those already addressed in the City of Sacramento General Plan MEIR. Therefore, the project's cumulative impacts related to construction and operation of the proposed project conflicting with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions would be ***less than significant***.

Mitigation Measure(s)
None required.

Endnotes

¹ City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

² City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

³ URS Corporation. *Air Quality and Greenhouse Gas Technical Report for the Aspen 1 – New Brighton Project Located in Sacramento, CA*. March 16, 2012.

⁴ United States Environmental Protection Agency. <http://www.epa.gov/climatechange/endorsement.html>.

⁵ United States Environmental Protection Agency. <http://www.epa.gov/oms/climate/regulations.htm>.

5.2 BIOLOGICAL RESOURCES

5.2

BIOLOGICAL RESOURCES

5.2.0 INTRODUCTION

The Biological Resources chapter of the EIR evaluates the biological resources that occur in the Aspen 1-New Brighton project (proposed project) area. Existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities are discussed. This chapter is primarily based on the *Biological and Wetlands Resources Evaluation* prepared by Airola Environmental Consulting and Gibson & Skordal, LLC (See Appendix G),¹ as well as information contained in the *Sacramento 2030 General Plan*,² and the *Sacramento 2030 General Plan Master EIR (MEIR)*.³

5.2.1 EXISTING ENVIRONMENTAL SETTING

Site History and Overview

The proposed project consists of the development of the project site shown on Figure 5.2-1 and appurtenant off-site infrastructure improvements shown on Figure 5.2-2. This chapter addresses impacts to biological and wetlands resources associated with the proposed development of the project site, as well as the impacts associated with off-site infrastructure needed to serve the proposed development.

The proposed project would include the development of approximately 232 acres with a variety of uses including residential, commercial, and mixed uses, as well as parks, stormwater facilities, and an urban farming operation. Stormwater (and associated nuisance water) from the project area would drain into an easterly running channel and would be collected in an off-site retention basin (See Figure 5.6-2 in Chapter 5.6, Hydrology and Water Quality, of this Draft EIR). Off-site project components would occur outside the Sacramento city limits, within Sacramento County, on 222 acres that comprise portions of the Aspen II, Aspen III and Mayhew property sites. The off-site components include the stormwater drainage and retention discussed above, a sewer lift station, excavation of borrow material for use within the project site, and the disposal of excavated material on the Mayhew property. All other off-site infrastructure is located within the rights-of-way of existing roadways.

Project Relationship to Aggregate Operation Activities

The proposed project site is a former aggregate operation site. Aggregate extraction at the site is now complete, resulting in elevations ranging from approximately 12 to 50 feet above mean sea level. The project site continues to be used for aggregate processing activities, including conveyor transport of mined material from other Teichert Aggregates properties to the Perkins processing plant, which is located north of the project site, just across Jackson Highway (See Figure 5.2-2).

**Figure 5.2-1
Project Site Location**

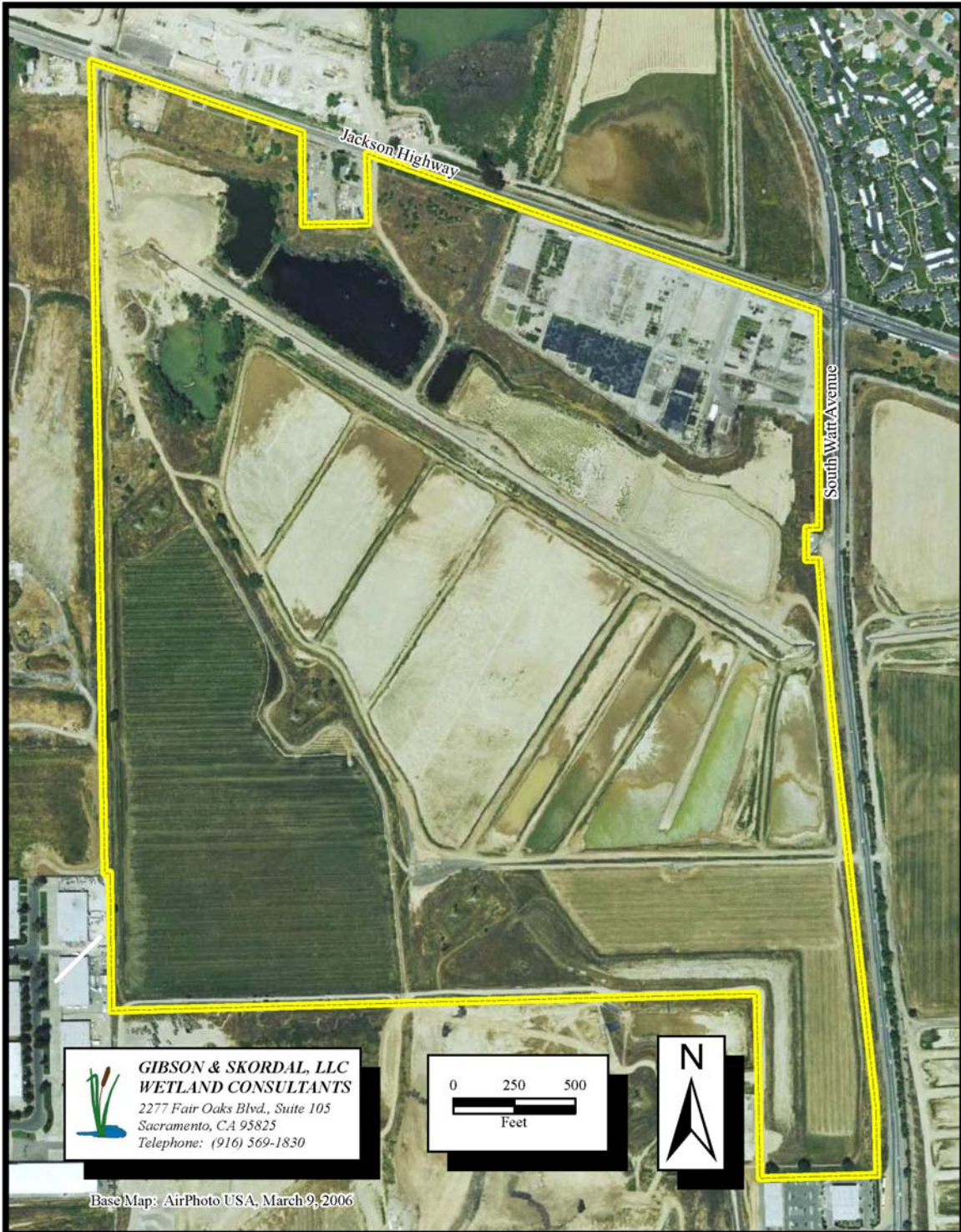
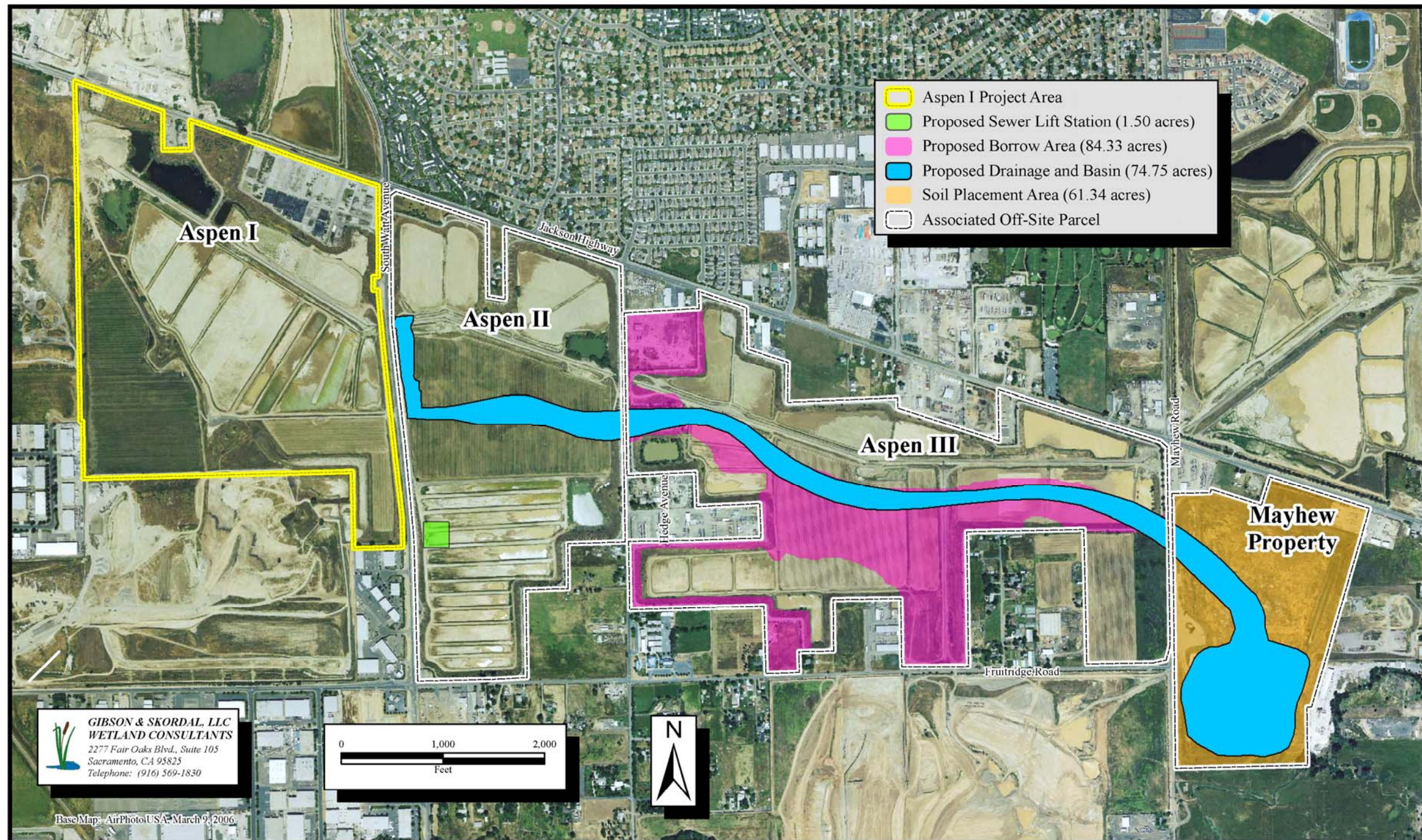


Figure 5.2-2
Off-Site Infrastructure



Much of the site also is used as drying beds, as described in the Project Site Conditions section below. Existing industrial ponds used to process aggregate and retain internal drainage also are located on-site. Finally, the proposed project site includes roads used to transport equipment and personnel and to inspect and patrol facilities and project lands.

For off-site properties, aggregate removal has been completed at the Aspen II and Aspen III properties, but the properties continue to be used as part of an active aggregate operation for aggregate transport (by conveyor) and processing of aggregate washed material. Approximately 25 acres in the southeast corner of the Aspen III property is at-grade. The Mayhew property, which is currently vacant, was previously mined and then later used for green waste composting and storage.

At the location of the off-site improvements, the Aspen II property consists of drying beds (where the sewer lift station will be located) and reclaimed agricultural fields (where the project site's drainage will be located). The drainage will continue east through the Aspen III property, which consists of drying beds, reclaimed agricultural fields, ditches constructed for the aggregate operations, an industrial pond, and annual grassland. The drainage channel culminates at a retention basin on the Mayhew property, which consists of disturbed annual grasslands and seasonal wetlands. The borrow area on the Aspen III property that will be used to generate the fill material used on the proposed project site consists of an industrial yard, drying beds, reclaimed agricultural fields, disturbed aggregate operation areas, an industrial pond, and ditches.

Project Site Conditions

Site History and Overview

The current conditions of the proposed project site have resulted largely from Teichert's past and ongoing mining operations, including aggregate extraction, transport, and processing. Much of the site was mined for aggregate during the 1960s. Since then, the site has been used for disposal of aggregate wash material, storage of processing waters, transport and storage of pre-processed mining materials, and agriculture on reclaimed lands.

The proposed project site is located along the south side of Jackson Highway immediately south of Teichert's Ready-Mix concrete plant and precast concrete plant located at 8760 Kiefer Boulevard in Sacramento (See Figure 5.2-2). Most of the eastern two thirds of the site consists of active drying beds used to dispose of unmerchantable soil removed during aggregate processing. The western third of the site is occupied by reclaimed agricultural lands. Several ponds in the north portion of the site store water used in washing aggregate.

An aggregate conveyor belt traverses and bisects the proposed project site. The conveyor belt deposits wet, pre-washed aggregate material onto a surge pile (i.e., a material storage pile maintained to ensure supply to the plant if longer term conveyor transport is interrupted) located in the northwest corner of the site. An overhead electrical transmission line traverses the western third of the site with three towers evenly spaced across the site. The bases of the towers have never been mined, and as a result, the tower footings are at the original grade of the surrounding areas (approximately 30 to 35 feet above the pit floor).

Off-Site Infrastructure: Aspen II, Aspen III, and Mayhew Properties

The portions of the Aspen II and III properties where the off-site infrastructure is proposed to be located are also largely influenced by Teichert Aggregates' past and ongoing aggregate operations, including aggregate extraction, transport, and processing. Much of the site was mined for aggregate during the 1960s. Since then, the site has been used for disposal of aggregate wash material, transport and storage of pre-processed aggregate materials, and agriculture on reclaimed lands.

The Aspen II property is located along the south side of Jackson Highway, east of South Watt Avenue, west of Hedge Avenue, and north of Fruitridge Road (See Figure 5.2-1). Much of the site consists of active drying beds used to dispose of aggregate wash material removed during aggregate processing. The central portion of the site consists of reclaimed agricultural lands. Two industrial ponds located along the eastern boundary of the project site retain water from precipitation. An aggregate conveyor belt traverses and bisects the Aspen II property. The conveyor belt delivers pre-washed aggregate material to a surge pile on the proposed project site and to the Perkins aggregate processing plant site. Access roads are located around the perimeter of the property, around the drying beds and agricultural field, and along both sides of the conveyor belt. The off-site infrastructure is proposed to be located in drying beds and reclaimed agricultural fields.

The Aspen III property is located along the south side of Jackson Highway, east of Hedge Avenue, west of Mayhew Road, and north of Fruitridge Road (See Figure 5.2-1). Drying beds are generally located along the western, northern, and eastern boundaries of the site, and a 60-acre reclaimed agricultural field is located at the center of the property. Two industrial ponds are located on the property. The industrial ponds are used for drainage from drying beds, runoff of disturbed aggregate operation areas, and runoff from the reclaimed agricultural field. Two aggregate conveyor belts traverse and bisect the Aspen III property – an active conveyor belt runs east to west across the entire property and an abandoned/inactive conveyor belt, located at the eastern edge of the agricultural field, runs from south to north from the boundary along Fruitridge Road to the active conveyor belt located in the northern section of the property. In addition, access roads are located around the perimeter of the property, around the drying beds and along both sides of the conveyor. An at-grade agricultural field and annual grasslands containing wetland features are located within the southeastern 25 acres. The off-site infrastructure is proposed to be located in drying beds, reclaimed agricultural fields, ditches constructed for the aggregate operations, industrial ponds, disturbed aggregate operation areas, and annual grassland.

The Mayhew property is located east of Mayhew and south of Jackson Highway (See Figure 5.2-1). Historically, the Mayhew property was mined by Sacramento Aggregates beginning in approximately 1982. In 1996, the Mayhew property was approved for use as a green waste composting and storage site, which continued until the early 2000s. The Mayhew property was subsequently sold to Teichert, Inc. in 2005 and, currently, the 97-acre property supports an aggregate operations area with an abandoned parking lot and industrial yard, as well as an industrial pond and seasonal wetlands. The off-site infrastructure is proposed to be located in disturbed annual grasslands which contain seasonal wetlands.

Soils and Geology

Nearly all native soils at the site were removed during past mining of the site for aggregate. The only area of native soil remaining consists of small pedestals that support transmission line towers and are at their original grade. Most of the site elevation is located below historic grade. Two areas that are close to historic grade, the commercial nursery property and the agricultural lands, consist of formerly mined lands that were restored to or near the pre-mining elevation. Therefore, the site lacks any substantial amount of native soil. The current growth medium for plants consists of unrestored excavated lands within disturbed mining areas and restored areas. (See Chapter, 5.4, Geology, Soils, and Mineral Resources for a more detailed discussion.)

Habitat Conditions

Habitat conditions at the project site reflect the intensive past and ongoing aggregate mining and reclamation uses. Habitat mapping for the biological resources assessment designated different habitats based on differences in appearance, ecological conditions, and suitability for various biological resources (See Figures 5.2-3 and 5.2-4). Acreages of mapped habitats are detailed in Figure 5.2-3 and summarized in Table 5.2-1. Habitat conditions are described below.

Drying Beds

Drying beds are a prominent feature on the proposed project site. Drying beds are shallow basins that are used to dispose of sediment washed from aggregate delivered to the Teichert Perkins plant. The purpose of these beds is to fill the depressions created by previous mining activities and eventually bring these areas up closer to adjacent grade. The sediment is delivered to the basins in slurry form and spread over the previously mined "pit" areas in interval layers of approximately 12 inches. The basins are filled in a rotational sequence so that different basins are in different states of wetness, ranging from shallow turbid ponds to mudflats and dry beds. The slurry is allowed to dry for approximately one month until it has begun to crack on the surface. A farm tractor then turns the material over to facilitate continued drying through evaporation. Once the material has dried, it is compacted to create engineered fill. Following compaction, the process is repeated with another layer of material. The drying beds are maintained at 90 percent compaction or greater.

Drying-bed habitats provide resting habitat and a water source for birds, but provide little or no foraging habitat because their turbid and frequently disturbed conditions do not promote growth of typical aquatic plants and animal food for birds and other wildlife. Monitoring of similar drying-bed facilities on Teichert's Aspen IV project showed limited use by ducks, geese, shorebirds, and other waterfowl. Waterbird use was not observed within drying-bed habitats during the visit to the proposed project site on February 27, 2009, a period when peak waterfowl numbers occur in other area wetlands, nor were any waterbirds present in May 2009. The drying beds are not suitable habitat for aquatic reptiles or amphibians. Low levees (less than four feet) between the beds support ruderal vegetation.

Industrial Ponds and Drainage Ditches

Four industrial ponds (Ponds 1, 2, 3, and 4) and four artificial drainage ditches (Ditch 1, 2, 3, and 4) have been constructed on the proposed project site (See Figure 5.2-3).

Figure 5.2-3
Delineation of Aquatic Features and Other Habitats

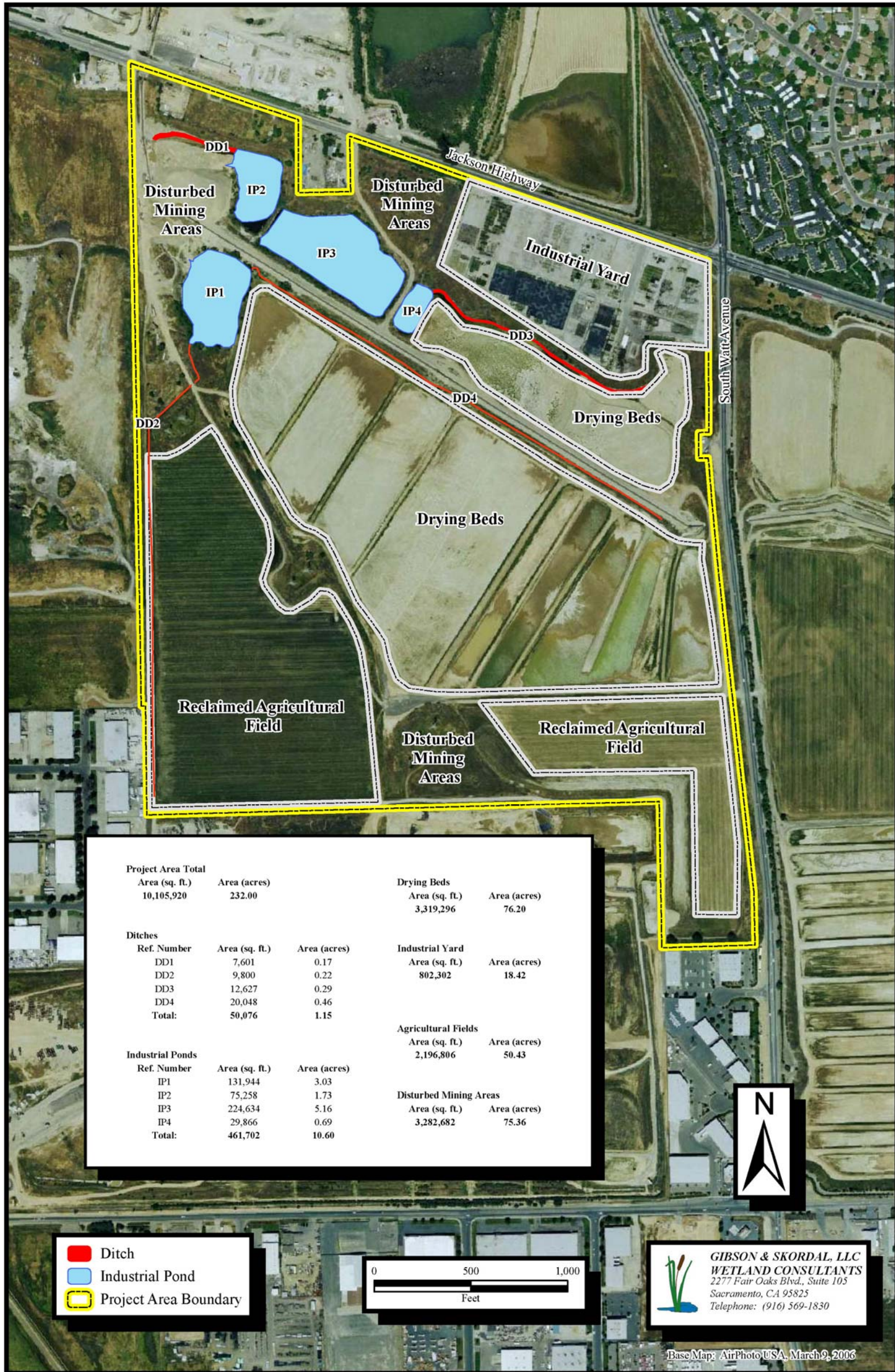


Figure 5.2-4
Proposed Project Impacts to Aquatic Features and Other Habitats

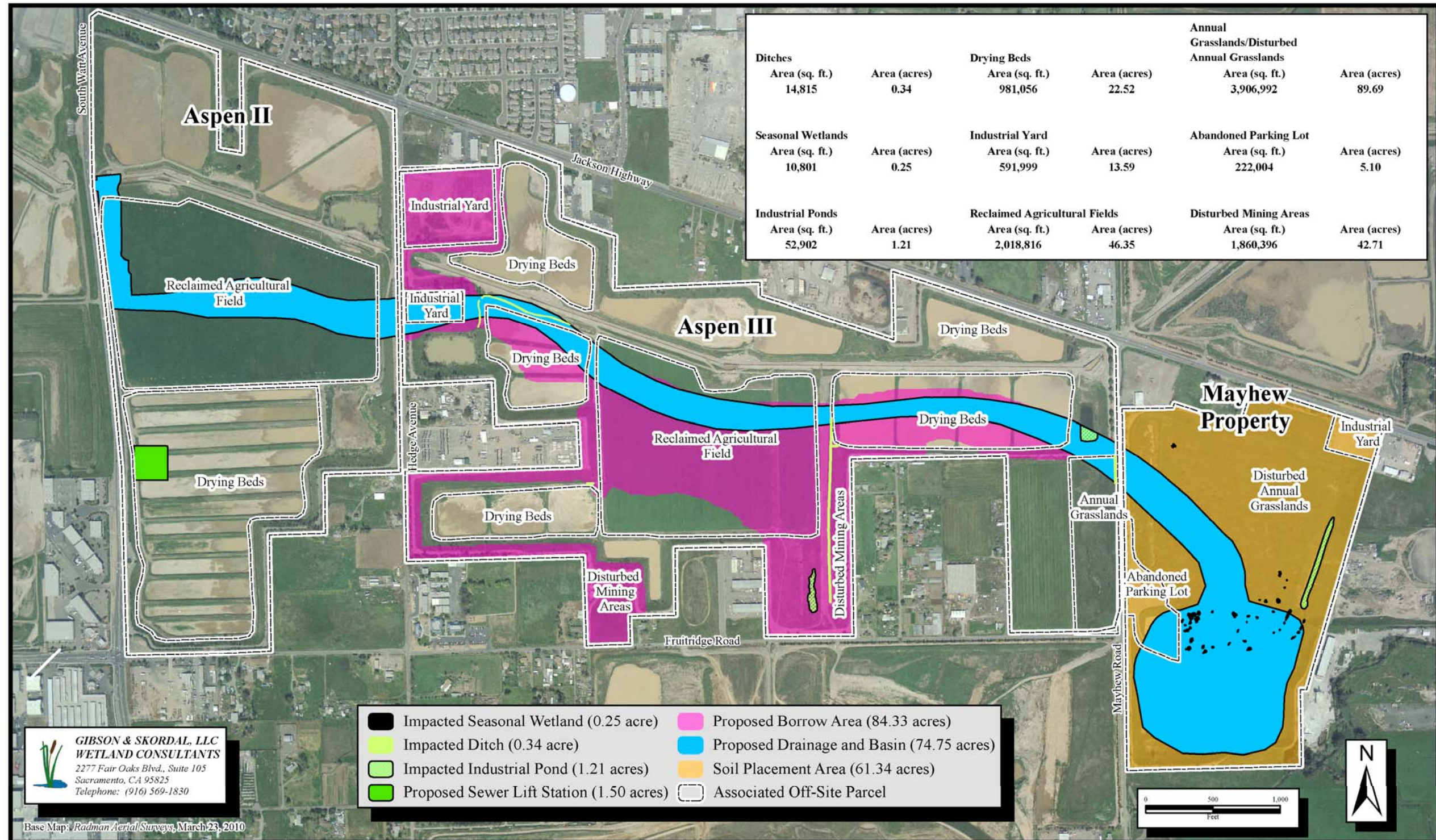


Table 5.2-1 Habitat Acreages at the Aspen 1-New Brighton Project Site									
Project Components	Drying Beds	Industrial Ponds	Ditches	Agricultural Fields	Industrial Yard	Disturbed Mining Areas	Abandoned Parking Lot	Annual Grasslands	Seasonal Wetlands
On-Site									
Aspen 1-New Brighton Development	76.20	10.60	1.15	50.43	18.42	75.36	0.00	0.00	0.00
Off-Site									
Drainage Channel and Retention Basin/Borrow Material/Excavation Area/Sewer Lift Station/Mayhew Disposal Area	22.52	1.21	0.34	46.35	13.59	42.71	5.10	89.69	0.25
Total	98.72	11.81	1.49	96.78	32.01	118.07	5.10	89.69	0.25

Source: Gibson and Skordal, LLC. Biological and Wetlands Resources Evaluation. February 17, 2011.

As part of the ongoing mining and reclamation operation on the proposed project site, Teichert conducts maintenance of these ponds and ditches, including the removal of vegetation to prevent encroachment. The proposed off-site infrastructure would also include the modification of four constructed ditches and three industrial ponds (See Figure 5.2-4). The off-site ditches and industrial ponds were created as part of the aggregate operations associated with each of the properties. These features are described in more detail below.

Industrial Pond 1

Industrial Pond 1, which is 3.03 acres in size, is located in the northwest portion of the site, directly south of the surge pile. Wet, pre-washed aggregate is stockpiled at the surge pile and then transferred when needed to the Perkins Processing Area conveyor belt. Water is constantly draining off of the surge pile and into Pond 1. An artificial drainage ditch (Ditch 2) conveys stormwater and drainage to Pond 1 from the reclaimed agricultural lands in the southwest portion of the site. Drainage water from the drying beds located immediately south of the pond can also drain directly into Pond 1.

The banks of the relatively deep Pond 1 are steep on all sides except around the northwest end and at the southwest corner. The northwest end appears to receive the runoff from the surge pile and as a result has a beach-like substrate with a shallow, gently sloping shore. The bank at the southwest corner of the pond has been excavated to accommodate and intercept an artificial drainage ditch (Ditch 2). The excavated area has silted in and is approximately 15 to 20 feet wide.

Vegetation at Pond 1 is limited to the banks and shore where woody riparian species such as cottonwood (*Populus fremontii*), black willow (*Salix nigra*), arroyo willow (*S. lasiolepus*), sandbar willow (*S. exigua*), and coyote brush (*Baccharis pilularis*) dominate the tree and shrub layer. The herbaceous and vine layers are dominated by such common species as Himalayan blackberry (*Rubus discolor*), hairy vetch (*Vicia villosa*), white sweetclover (*Melilotus alba*), sour sweetclover (*M. indica*), ripgut brome grass (*Bromus diandrus*), soft chess brome grass (*B. hordeaceus*), field mustard (*Brassica rapa*), and black mustard (*B. nigra*).

Industrial Pond 2

Industrial Pond 2, which is 1.73 acres in size, is located directly adjacent to the east side of the surge pile. This pond receives drainage from the surge pile through an artificially constructed drainage ditch (Ditch 1). Although the banks of this relatively shallow pond are steep sided, the shallow nature of this pond has allowed emergent wetland vegetation to grow in a shallow water fringe that occurs along approximately 90 percent of the pond edge. The pond is separated from Pond 3 by an approximately 20-foot-wide (at the base) artificial levee.

Woody riparian vegetation surrounding this pond is dominated by mulefat (*Baccharis salicifolia*), arroyo willow, sandbar willow, black willow, and cottonwood trees. The herbaceous and vine layers along the banks of this pond are dominated by such common species as Himalayan blackberry (*Rubus discolor*), California grape (*Vitis californica*), hairy vetch, white sweetclover, sour sweetclover, ripgut brome grass, soft chess brome grass, field mustard, and black mustard. Emergent wetland vegetation

occurring in the shallow edges of the pond is dominated by spike rush (*Eleocharis macrostachya*).

Industrial Pond 3

At 5.16 acres, Pond 3 is the largest of the four ponds at the project site. Pond 3 is located directly adjacent to the southeast side of Pond 2 and is separated from Pond 2 by a levee. This pond receives drainage from nearby uplands and aggregate operations and overflow from Pond 2. The banks of this relatively deep pond are steep sided and the only emergent wetland vegetation is located at the west end of the pond where silts have built up along the levee. Emergent vegetation at the west end of the pond is dominated by sandbar willow. The pond is separated from Pond 2 by an artificial levee that is approximately 20 feet wide at the base. Mature woody riparian vegetation exists only at the northwest corner of the pond. However, the immature woody riparian vegetation that has returned following vegetation maintenance surrounds the rest of the pond. Woody riparian vegetation at this pond is dominated by mulefat, coyote brush, arroyo willow, sandbar willow, and cottonwood trees. In addition, the herbaceous and vine layers along the banks of this pond are dominated by such common species as Himalayan blackberry, California grape, hairy vetch, white sweetclover, sour sweetclover, ripgut brome grass, soft chess brome grass, field mustard, and black mustard.

Industrial Pond 4

Pond 4, which is 0.69-acre in size, is the smallest of the four ponds in the project area. Pond 4 was constructed just to the east of Pond 3 and is separated from Pond 3 by an approximately 35 foot wide, well maintained, dirt access road. An approximately 10-foot-wide artificial drainage ditch appears to convey run off and drainage from drying beds located immediately east of Pond 4. The banks of this smaller pond have been frequently maintained and only immature and shrubby woody vegetation and other weedy herbaceous vegetation was found growing around this pond. Woody vegetation is dominated by mulefat and coyote brush. The vine and herbaceous layers are dominated by Himalayan blackberry, soft chess brome grass, ripgut brome grass, hairy vetch, sour sweetclover, white sweetclover, horseweed (*Conyza canadensis*), field mustard, and black mustard. The banks of this relatively deep pond are steep sided and, as a result, no emergent wetland vegetation is present anywhere in this pond.

In summary, the four artificial ponds were created to store wash water for use in the aggregate operations and have been subject to routine maintenance activities, including the removal of encroaching vegetation. In addition, the shapes and sizes of these ponds have been maintained or altered as needed for aggregate recovery and reclamation operations. At the time of survey, each of the four ponds was inundated with water from the ongoing industrial uses. The limited riparian and lacustrine vegetation and functions associated with these ponds depends on drainage and retention of industrial water associated with the ongoing aggregate operations. When the ongoing aggregate mining operations are discontinued, as planned, the extent of riparian and lacustrine vegetation and functions that occur at the fringes of the retention ponds will likely be significantly reduced because of elimination of much of the ponds' water input.

Off-Site Industrial Ponds

Three industrial ponds occur within the off-site infrastructure improvement area (See Figure 5.2-4). Of the three industrial ponds, one is located on the Mayhew property and the other two are located on the Aspen III property. These features are described in detail below.

Aspen III Industrial Ponds

An 0.33-acre industrial pond is located near the center of the southern boundary of the Aspen III property. The pond is shallow, with a maximum depth of approximately 18 inches to two feet, and exists as a low spot that receives seasonal runoff from the reclaimed agricultural field, as well as precipitation. An access road and an unused conveyor belt are located immediately east of the industrial pond. The industrial pond was likely created incidental to the construction of the adjacent access road. Woody riparian vegetation is limited to cottonwood saplings located along the south and west banks. The herbaceous vegetation along the banks of this industrial pond are dominated by common species such as hairy vetch, white sweetclover, sour sweetclover, ripgut brome grass, soft chess brome grass, field 23 mustard, and black mustard, among others. As the industrial pond dries out during the late spring and summer months, wetland vegetation such as popcorn flower (*Plagiobothrys* sp.) and goldfields (*Lasthenia* sp.) dominate the bottom of the industrial pond. Drainage ditches are not associated with this pond.

The second industrial pond is approximately 1.07 acres and is located on the eastern portion of the Aspen III property. The pond is relatively deep with pit walls on the south and east sides. The top of the west bank is open to the pit floor and adjacent to a drying bed from which the pond receives water/drainage. The north bank of the industrial pond is bordered by a road ramp that facilitates vehicle traffic from the top of the pit to the bottom of the pit. Woody riparian vegetation consisting of sandbar willow is dominant along the north bank of the pond, sparse along the west and east banks, and non-existent along the south bank. The herbaceous and vine layers along the banks are dominated by such common species as Himalayan blackberry, California grape, hairy vetch, white sweetclover, sour sweetclover, ripgut brome grass, soft chess brome grass, field mustard, and black mustard.

Mayhew Property Industrial Pond

A third off-site industrial pond totaling 0.64-acre in size is located within the Mayhew property. The industrial pond parallels the east edge of the study area and appears to be an artifact from historic aggregate operations, but was also likely modified by the green waste operation. Although surface water was not present during field surveys, ponding occurred to a maximum depth of approximately three feet in 2009 based on the location of the rack line and high water mark. Rough cocklebur (*Xanthium strumarium*) was growing in the dried pond bed, while willows (*Salix* sp.) and cottonwoods (*Populus fremontii*) lined the southern banks. Very thick algal matting and cracked soils were also present. This industrial pond is at an elevation of approximately 12 feet and represents the lowest point within the study area.

In summary, a total of seven industrial ponds exist within the project area (four within the on-site project area and three within the off-site project area). Five of the ponds are used

for aggregate operations and have been subject to routine maintenance activities, including the removal of encroaching vegetation. The shapes and sizes of five of these seven industrial ponds have been maintained or altered as needed for aggregate recovery and reclamation operations. At the time of survey, each of the four industrial ponds on the project site was inundated with water from the ongoing industrial uses. The limited riparian and lacustrine vegetation and functions associated with these industrial ponds depend on drainage and retention of industrial water associated with the ongoing aggregate operations. When the ongoing aggregate operations are discontinued, as planned, the extent of riparian and lacustrine vegetation and functions that occur at the fringes of the industrial ponds will likely be significantly reduced or eliminated because of elimination of much of the industrial ponds' water input.

Drainage Ditches

Four excavated drainage ditches occur within the proposed project site (See Figure 5.2-3) and an additional four drainage ditches occur within the footprint of the off-site infrastructure on the Aspen III property (See Figure 5.2-4). All of these artificial (non-natural) drainage features are regularly maintained as part of the ongoing aggregate operations to ensure that proper drainage occurs at the drying beds, the surge pile, and the reclaimed agricultural lands. Vegetation in the ditches on the project site was dominated by annual grassland species such as rip gut brome grass, soft chess brome grass, hairy vetch, Italian ryegrass, and horseweed, while vegetation in the off-site ditches was dominated by annual grassland species such as Italian ryegrass (*Lolium multiflorum*) and seaside barley (*Hordeum marinum*). When the ongoing aggregate operations are discontinued, water conveyance functions will likely be significantly reduced or eliminated entirely.

Reclaimed Agricultural Lands

The land in the southwest portion of the project area is at a higher elevation than the rest of the project lands. 50.43 acres of the lands are currently leased for agricultural use. The history of this site is not fully known, but is thought to have been mined and reclaimed in the distant past. The site has been farmed for many years. These agricultural lands were farmed to oat hay in 2009 and provided suitable foraging habitat for the Swainson's hawk and other raptors. During May 2009, as many as 500 to 1,000 tricolored blackbirds were observed flying to forage within the unharvested oats in this field.

Approximately 46.35 acres of reclaimed agricultural lands are located within the off-site infrastructure area on the Aspen II and Aspen III properties. This land-use type will not change when the aggregate operations cease.

Industrial Yard

The 18.42-acre area at the northeast corner of the project site was previously mined and restored to a grade similar to that of the nearby Jackson Highway. The area was formerly leased for a commercial nursery operation. Currently, the area is leased intermittently for use as an industrial yard, such as for storage of construction equipment and materials.

Two additional industrial yards on the Aspen III property would be impacted by the construction of the drainage channel and the excavation of borrow material. One industrial yard located in the northwest corner of the Aspen III property does not have any active land uses but the area

was previously used as a vehicle wrecking/storage yard. This property is composed of nearly level ground with a mixture of compacted soil substrate, compacted gravel, and asphalt/concrete. Vegetation is limited to scattered weedy annual grassland species growing in exposed soil areas across the site. Wetlands, waters of the U.S., or habitats for endangered species do not occur at this area. The industrial yard has never been subject to aggregate operations, and remains at the same grade as the surrounding un-mined lands.

The second industrial yard in the off-site area is located along Hedge Avenue in the central portion of the west side of the Aspen III property. This yard is currently used to store recreational vehicles and for general storage. Habitat present at the industrial yard is limited to mature sycamore and eucalyptus trees along the yard edges and a thicket of Himalayan blackberry along the southern boundary fence line. The interior of the yard is partially paved, graveled, and compacted soil substrate. This yard has never been subject to aggregate operations, and occurs at the same grade as the surrounding (non-mine/pit) land uses. This land-use type will not change when the aggregate operations cease.

Off-Site Annual Grasslands

Annual grassland habitat at the at-grade section of the Aspen III property is located on relatively flat terrain at an average elevation of 60 feet. The east and south edges of the at-grade area border Mayhew Road and Fruitridge Road, respectively. The western two-thirds of the at-grade area supports an actively farmed hay field, which may have been historically leveled. The eastern one-third appears to be relatively undisturbed with the exception of a drainage ditch situated along the base of Mayhew Road. The actively maintained hay field is predominantly composed of perennial rye grass (*Lolium perenne*) and wild oats (*Avena fatua*) and the non-native annual grasslands are characterized by soft chess (*Bromus mollis*), six-week brome (*Vulpia bromoides*), rip-gut brome (*Bromus diandrus*), medusa head (*Taeniatherum caput-medusae*), and wild oats. In addition, the Mayhew property predominantly supports disturbed non-native annual grasslands characterized by soft chess, wild oats, rip-gut brome, yellow star-thistle (*Centaurea solstitialis*), medusa head, filaree (*Erodium botrys*), rat-tail fescue (*Vulpia myuros*), hairy hawkbit (*Leontodon leysseri*), fiddleneck (*Amsinckia intermedia*), and common tarweed (*Holocarpha virgata*). This land-use type will not change when the aggregate operations cease.

Off-Site Seasonal Wetlands

Seasonal wetland habitat within the Mayhew property sustains long-term ponding and/or saturated soil conditions during and following periods of heavy precipitation in the winter and early spring. Additional water may be provided by surface sheet flow and subsurface discharge onto perched water-tables, if present. Plants observed include coyote thistle (*Eryngium vaseyi*), slender popcorn flower (*Plagiobothrys stipitatus*), Mediterranean barley (*Hordeum hystris*), loosestrife (*Lythrum hyssopifolia*), and annual hair-grass (*Deschampsia danthonioides*). The soil profiles in the seasonal wetlands were extremely disturbed due to historic aggregate operations and green waste storage. Some of the soils were sandy silt loams that possessed at least five percent redoximorphic features located within the matrices. In other areas, the soil was almost entirely composed of partially composted organic matter. The primary indicators of wetland hydrology were the presence of biotic crusts in the form of algal matting and surface observed during a site visit held approximately two weeks before field surveys. This land-use type will not change when the aggregate operations cease.

Aggregate Operation and Aggregate Processing Areas

Mining and aggregate processing areas include lands that are primarily used for transport and storage of aggregate, general site management (e.g., roads), or residual lands from past mining operations (e.g., sides of old excavation areas). These areas support either bare ground or ruderal vegetation, including non-native and some native annual grasses and herbaceous species. These areas have low wildlife value due to frequent disturbance. They are used by wildlife species that favor open ground and herbaceous seeds, including mourning doves, California quail, American goldfinches, house finches, and other common species. Based on surrounding conditions, it is likely that once the aggregate operations cease, more of these areas will support ruderal vegetation.

Ornamental Screening

Most of the perimeter of the project site supports a narrow (10- to 20-foot-wide) band of mainly non-native ornamental shrubs that were planted to provide a visual screen of the site operations from surrounding streets. This habitat supports generalist species that accept ornamental habitats, including species such as mourning doves, northern mockingbirds, California quail, Anna's hummingbirds, and house finches. This land-use type will not change when the aggregate operations cease.

Protected Trees

Twenty-two trees (18 Fremont cottonwoods and four valley oaks) on the project site meet the City's size criteria for heritage and/or protected trees. The trees are limited to the fringe of Industrial Pond 1 and a few other isolated sites within areas that are subject to regular disturbance by aggregate operation activities (See Figure 5.2-5). Table 5.2-2 lists these trees by species and circumference. The condition of these trees was not assessed; therefore, it is possible that some of these trees would not meet the "good" condition required for eligibility as heritage trees under the *City of Sacramento Heritage Tree Ordinance*. Other woody vegetation on-site is of small stature, due to regular disturbance by industrial activities.

Thirty-one trees (30 valley oak and one interior live oak) occur within the off-site infrastructure areas of the proposed project and meet the definition and size criteria for protected trees contained in the *Sacramento County General Plan* and the *Sacramento County Code*. All protected trees are screening trees along the edges of the aggregate operations area at the top of the pit walls (See Figure 5.2-6). Table 5.2-3 lists these trees by species and diameter at breast height (dbh).

Special-Status Species

Special-status species are plant and animal species that federal, state, or local resource agencies or organizations have designated for special recognition and protection. These species typically have limited distributions or special requirements for certain habitat conditions. For this assessment, special-status species are defined as those:

- Listed or proposed for listing under Federal or State Endangered Species Acts;
- Designated by CDFG as Fully Protected or Species of Special Concern; and
- Identified by CNPS as being rare or threatened.

Figure 5.2-5
Heritage Tree and Elderberry Shrub Survey Results



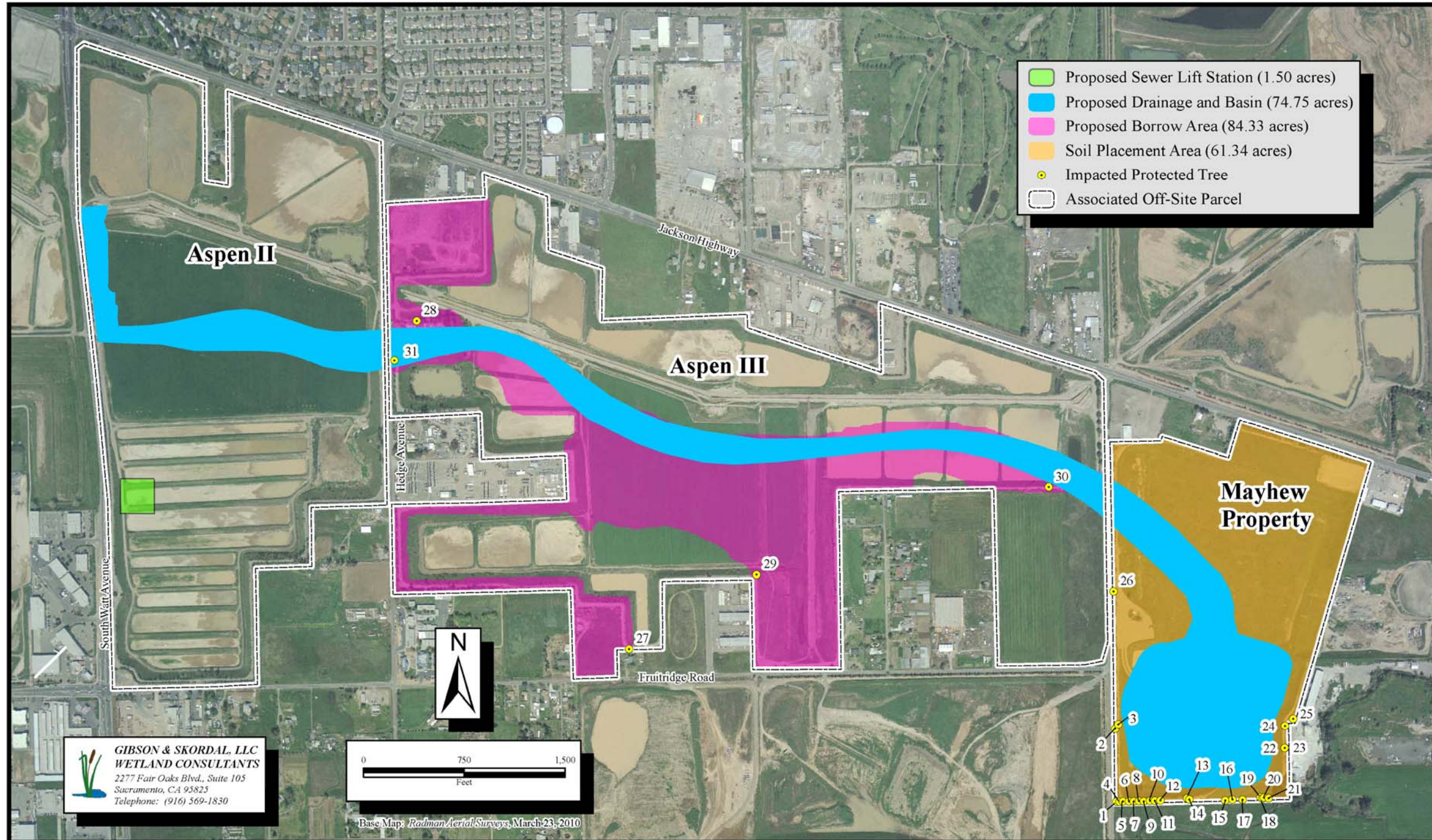
**Table 5.2-2
 Heritage Tree Survey Results**

Reference Number ¹	Species	Common Name	Number of Trunks	Total Circumference (inches)
1	<i>Quercus lobata</i>	Valley oak	1	44
2	<i>Quercus lobata</i>	Valley oak	1	48
3	<i>Quercus lobata</i>	Valley oak	1	49
4	<i>Quercus lobata</i>	Valley oak	1	55
5	<i>Populus fremontii</i>	Fremont cottonwood	1	108
6	<i>Populus fremontii</i>	Fremont cottonwood	1	103
7	<i>Populus fremontii</i>	Fremont cottonwood	5	164
8	<i>Populus fremontii</i>	Fremont cottonwood	1	134
9	<i>Populus fremontii</i>	Fremont cottonwood	1	100
10	<i>Populus fremontii</i>	Fremont cottonwood	3	172
11	<i>Populus fremontii</i>	Fremont cottonwood	2	239
12	<i>Populus fremontii</i>	Fremont cottonwood	1	167
13	<i>Populus fremontii</i>	Fremont cottonwood	1	127
14	<i>Populus fremontii</i>	Fremont cottonwood	3	193
15	<i>Populus fremontii</i>	Fremont cottonwood	6	235
16	<i>Populus fremontii</i>	Fremont cottonwood	1	120
17	<i>Populus fremontii</i>	Fremont cottonwood	1	109
18	<i>Populus fremontii</i>	Fremont cottonwood	1	102
19	<i>Populus fremontii</i>	Fremont cottonwood	1	>101
20	<i>Populus fremontii</i>	Fremont cottonwood	1	104
21	<i>Populus fremontii</i>	Fremont cottonwood	2	174
22	<i>Populus fremontii</i>	Fremont cottonwood	1	155

¹ See Figure 5.2-5 for tree locations.

Source: Gibson and Skordal (2009a).

Figure 5.2-6
 Proposed Off-Site Infrastructure in Relation to Existing Heritage Trees



**Table 5.2-3
 Trees Identified in Off-Site Project Areas Subject to Protection Under the
 Sacramento County Tree Protection Ordinance**

Reference Number ¹	Species	Common Name	Cumulative DBH	DBH 1	DBH 2 ²	DBH 3
1	<i>Quercus lobata</i>	Valley oak	13.5	13.5		
2	<i>Quercus lobata</i>	Valley oak	12.2	12.2		
3	<i>Quercus lobata</i>	Valley oak	12.0	12.0		
4	<i>Quercus lobata</i>	Valley oak	12.5	8.0	4.5	
5	<i>Quercus lobata</i>	Valley oak	7.0	7.0		
6	<i>Quercus lobata</i>	Valley oak	10.3	10.3		
7	<i>Quercus lobata</i>	Valley oak	9.0	9.0		
8	<i>Quercus lobata</i>	Valley oak	9.4	9.4		
9	<i>Quercus lobata</i>	Valley oak	9.4	9.4		
10	<i>Quercus lobata</i>	Valley oak	8.0	8.0		
11	<i>Quercus lobata</i>	Valley oak	8.0	8.0		
12	<i>Quercus lobata</i>	Valley oak	10.0	10.0		
13	<i>Quercus lobata</i>	Valley oak	18.0	18.0		
14	<i>Quercus lobata</i>	Valley oak	9.5	9.5		
15	<i>Quercus lobata</i>	Valley oak	12.0	12.0		
16	<i>Quercus lobata</i>	Valley oak	14.0	14.0		
17	<i>Quercus lobata</i>	Valley oak	9.8	9.8		
18	<i>Quercus lobata</i>	Valley oak	15.5	15.5		
19	<i>Quercus lobata</i>	Valley oak	8.0	8.0		
20	<i>Quercus lobata</i>	Valley oak	13.5	6.0	7.5	
21	<i>Quercus lobata</i>	Valley oak	12.2	12.2		
22	<i>Quercus lobata</i>	Valley oak	14.5	7.5	4.0	3.0
23	<i>Quercus lobata</i>	Valley oak	7.2	7.2		
24	<i>Quercus lobata</i>	Valley oak	12.2	12.2		
25	<i>Quercus lobata</i>	Valley oak	8.5	8.5		
26	<i>Quercus lobata</i>	Valley oak	13.0	13.0		
27	<i>Quercus lobata</i>	Valley oak	6.5	6.5		
28	<i>Quercus lobata</i>	Valley oak	6.0	6.0		
29	<i>Quercus wislizenii</i>	Interior live oak	10.0	4.0	3.0	3.0
30	<i>Quercus lobata</i>	Valley oak	12.0	8.0	4.0	
31	<i>Quercus lobata</i>	Valley oak	32.0	19.0	13.0	

¹ See Figure 5.2-6 for tree locations.

² DBH 2 and DBH 3 indicate trunk sizes for multi-trunk trees.

Source: Gibson and Skordal (2009a).

Evaluation of Potential Occurrence

As described in the Method of Analysis section below, an initial list of potential special-status species was selected for evaluation based on a search of the California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDDB) for records of species occurrence in the project vicinity, reconnaissance surveys to evaluate habitats, review of relevant scientific literature, and focused field surveys. Table 5.2-4 presents the common and scientific names of all selected species, their regulatory status, descriptions of the species' relevant habitat requirements, and evaluations of their potential for occurrence on the site.

Potentials for occurrence on the site were assigned to species according to the following categories:

- *Present*: The species is known to occur on the site, based on CNDDDB records and/or detection on-site during field surveys.
- *High*: The site supports suitable habitat for the species and the species is known to occur within five miles of the site (from CNDDDB records) or the species is expected to occur on-site or nearby based on professional judgment regarding species requirements and site characteristics, with suitable habitat for the species on-site.
- *Moderate*: The species is known from records within five miles of the project site but only moderately suitable habitat occurs on-site.
- *Low*: The species is known to occur in the project vicinity but the project site provides only marginal habitat or, although suitable habitat is present, the species is not known to occur in the project vicinity.
- *None*: Suitable habitat for the species does not occur on-site or the species was not found during on-site protocol-level surveys during the appropriate season.

The following sections discuss the species that are present on the proposed project site or have high, moderate, or low potential to occur.

Vernal Pool Crustaceans

The vernal pool fairy shrimp (*Branchinecta lynchi*), is a small crustacean in the Branchinectidae family, ranging in size from one-half to one inch long. Vernal pool fairy shrimp are aquatic species in the order Anostraca. The vernal pool fairy shrimp occupies a variety of different vernal pool habitats, from small, clear, sandstone rock pools to large, turbid, alkaline, grassland pools on the valley floor. Generally, vernal pool fairy shrimp can be found from early December to early May throughout the Central Valley. Female fairy shrimp carry their eggs in a ventral brood sac. The eggs either are dropped to the pool bottom or remain in the brood sac until the mother dies and sinks. When the pool dries out, so do the eggs. They remain in the dry pool bed until rains and other environmental stimuli hatch them.

**Table 5.2-4
 Special-Status Species Evaluated for Potential Occurrence within the Proposed Project Area**

Species	Federal Status	State Status	CNPS Listing	Habitat Association	Potential for Occurrence in the Project Area	Rationale for Assessing Potential Occurrence
Plants						
Ahart's dwarf rush (<i>Juncus leiospermus</i> <i>var. ahartii</i>)	None	None	CNPS-1B.2	Vernal pools and other seasonally flooded features.	None	Suitable habitat does not occur on-site.
Bogg's Lake hedge-hyssop (<i>Gratiola heterosepala</i>)	None	Endangered	CNPS-1B.2	Vernal pools and margins of lakes/ponds.	Low	Marginal habitat is present along margins of industrial ponds.
Brandegee's clarkia (<i>Clarkia biloba</i> ssp. <i>brandegeae</i>)	None	None	CNPS-1B.2	Generally associated with chaparral and cismontane woodland, but may occur in foothill oak woodland and grassland.	None	Suitable habitat does not occur on-site.
Dwarf downingia (<i>Downingia pusilla</i>)	None	None	CNPS-2.2	Vernal pools and other seasonally flooded features.	None	Suitable habitat does not occur on-site.
Legenere (<i>Legenere limosa</i>)	None	None	CNPS-1B.1	Vernal pools and other seasonally flooded features.	None	Suitable habitat does not occur on-site.
Northern California black walnut (<i>Juglans hindsii</i>)	None	None	CNPS-1B.1	Only two of three known native stands are still in existence. This species prefers riparian scrub and riparian woodland habitats.	None	All historic landscapes and landforms at the project site were removed during the mining. As a result, natural/historic stands of these species do not occur.
Pin cushion navarretia (<i>Navarretia myersii</i> ssp. <i>Myersii</i>)	None	None	CNPS-1B.1	Vernal pools and other seasonally flooded features.	None	Suitable habitat does not occur on-site.
Sacramento orcutt grass (<i>Orcuttia viscida</i>)	Endangered	Endangered	CNPS-1B.1	Vernal pools and other seasonally flooded features.	None	Suitable habitat does not occur on-site.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	None	None	CNPS-1B.2	Emergent marsh habitat typically associated with drainages, canals, or irrigation ditches.	Low	Marginal habitat occurs along edges of industrial ponds.
Slender orcutt grass (<i>Orcuttia tenuis</i>)	Threatened	Endangered	CNPS-1B.1	Vernal pools and other seasonally flooded features.	None	Suitable habitat does not occur on-site.

(Continued on next page)

**Table 5.2-4
 Special-Status Species Evaluated for Potential Occurrence within the Proposed Project Area**

Species	Federal Status	State Status	CNPS Listing	Habitat Association	Potential for Occurrence in the Project Area	Rationale for Assessing Potential Occurrence
Stinkbells (<i>Fritillaria agrestis</i>)	None	None	CNPS-4.2	Non-native grasslands with heavy clay soils. Sometimes found on serpentine soils.	None	Suitable habitat does not occur on-site.
Wooly rose-mallow (<i>Hibiscus lasiocarpus</i>)	None	None	CNPS-2.2	Species typically occurs in freshwater wetlands/marshes or other areas with wet soils.	None	Suitable habitat does not occur on-site.
Invertebrates						
California linderiella (<i>Linderiella occidentalis</i>)	Species of Concern	None	N/A	Vernal pools, swales, and other ephemeral freshwater habitats.	Low	Marginal habitat within Mayhew Acquisition seasonal wetlands.
Hairy water flea (<i>Dumontia oregonensis</i>)	None	None	N/A	Vernal pools.	Low	Marginal habitat within Mayhew Acquisition seasonal wetlands.
Midvalley fairy shrimp (<i>Branchinecta mesovallensis</i>)	Species of Concern	None	N/A	Vernal pools, swales, and other ephemeral freshwater habitats.	Low	Marginal habitat within Mayhew Acquisition seasonal wetlands.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	Threatened	None	N/A	Elderberry host plants (<i>Sambucus sp.</i>) in riparian habitats.	Low	Complete surveys have been conducted. One elderberry shrub was found on a transmission tower pedestal.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	Threatened	None	N/A	Vernal pools, swales, and other ephemeral freshwater habitats.	None	Suitable habitat does not occur on-site.
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	Endangered	None	N/A	Vernal pools, swales, and other ephemeral freshwater habitats.	None	Suitable habitat does not occur on-site.
Amphibians/Reptiles						
Northwestern pond turtle (<i>Clemmys marmorata marmorata</i>)	Species of Concern	Species of Special Concern	N/A	Permanent or nearly permanent water in wide variety of habitat types.	Low	None observed during surveys and ponds appear to be too disturbed to support species.

(Continued on next page)

**Table 5.2-4
 Special-Status Species Evaluated for Potential Occurrence within the Proposed Project Area**

Species	Federal Status	State Status	CNPS Listing	Habitat Association	Potential for Occurrence in the Project Area	Rationale for Assessing Potential Occurrence
Birds						
Bank swallow (<i>Riparia riparia</i>)	None	Threatened	N/A	Vertical banks with fine-textured, sandy soils for excavating burrows for colonial nesting, generally in riparian habitats.	Low	Suitable bank habitat does not exist on-site to support nesting, and the area is unlikely to be attractive for foraging.
Ferruginous hawk (<i>Buteo regalis</i>)	Species of Concern	Species of Special Concern	N/A	Open grassland habitats and woodlands and brushy forests (wintering).	None	The area is too disturbed and fragmented.
Northern harrier (<i>Circus cyaneus</i>)	None	Species of Special Concern	N/A	Open grasslands, wetlands, and agricultural fields.	Moderate	Nesting is not likely – areas too disturbed to support nesting (could use the reclaimed agricultural field in winter).
Purple martin (<i>Progne subis</i>)	None	Species of Special Concern	N/A	Low elevation woodlands and riparian areas for nesting.	None	Nests only in bridges and overpasses. Too far from breeding sites to attract martins for foraging.
Swainson's hawk (<i>Buteo swainsoni</i>)	Species of Concern	Threatened	N/A	Riparian woodlands and isolated trees adjacent to suitable foraging habitat (agricultural fields and grasslands) for nesting.	High	Nesting does not occur on-site but foraging likely occurs in reclaimed agricultural fields.
Tricolored blackbird (<i>Agelaius tricolor</i>)	Species of Concern	Species of Special Concern	N/A	Dense thickets of blackberry, cattails, willow, and wild rose in emergent wetland habitats.	High	Observed foraging on-site in reclaimed agricultural fields from adjacent nest site. Nesting habitat limited due to frequent maintenance.

(Continued on next page)

**Table 5.2-4
 Special-Status Species Evaluated for Potential Occurrence within the Proposed Project Area**

Species	Federal Status	State Status	CNPS Listing	Habitat Association	Potential for Occurrence in the Project Area	Rationale for Assessing Potential Occurrence
Western burrowing owl (<i>Athene cunicularia hypugaea</i>)	Species of Concern	Species of Special Concern	N/A	Open, dry grasslands where it nests in ground burrows, often from ground squirrels or badgers.	Moderate	Not detected in surveys, but habitat suitable for breeding and wintering.
White-tailed kite (<i>Elanus leucurus</i>)	Species of Concern	Fully Protected	N/A	Woodlands and isolated trees (for nesting) near suitable open foraging habitat.	Moderate	Nesting does not occur on-site, but there is potential for future use. Foraging is possible in agricultural fields in winter.
Mammals						
American badger (<i>Taxidea taxus</i>)	None	Species of Special Concern	N/A	Dry shrub and forest habitats with friable soils.	None	The site is too disturbed and fragmented.
<p>N/A = Not Applicable</p> <p>CNPS Listing Categories:</p> <p>List 1A - Plants Presumed Extinct in California List 1B - Plants Rare, Threatened, or Endangered in California and Elsewhere List 2 - Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere List 3 - Plants about Which We Need More Information (The Review List) List 4 - Plants of Limited Distribution (The Watch List)</p> <p>CNPS Threat Ranks are extensions added to the CNPS Listing Category to designate the level of endangerment as follows:</p> <p>0.1 - Seriously threatened in California (high degree/immediacy of threat) 0.2 - Fairly threatened in California (moderate degree/immediacy of threat) 0.3 - Not very threatened in California (low degree/immediacy of threats or no current threats known)</p>						

The vernal pool tadpole shrimp (*Lepidurus packardii*) is a small crustacean in the Triopsidae family. The tadpole shrimp has compound eyes, a large shield-like carapace (shell) that covers most of the body, and a pair of long cercopods (appendages) at the end of the last abdominal segment. Vernal pool tadpole shrimp adults reach a length of two inches in length. This animal inhabits vernal pools containing clear to highly turbid water, ranging in size from 54 square feet in the former Mather Air Force Base area of Sacramento County to the 89-acre Olcott Lake at Jepson Prairie. The life history of the vernal pool tadpole shrimp is linked to the seasonal cycle of the vernal pool. After winter rainwater fills the pool, the population is reestablished from cysts that lie dormant in the dry pool sediments.

The seasonal wetlands located on the Mayhew property are the only potential habitat for federally listed vernal pool crustaceans within the project area. At the time of publication, vernal pool fairy shrimp and/or vernal pool tadpole shrimp had not been observed within potential habitats located within the project area. In addition, the first of the two wet season surveys had been completed (during which vernal pool crustaceans were not found) and the second wet season survey was in process.

Swainson's Hawk

Swainson's hawk, a California Threatened Species, nests in California's Central Valley and winters primarily in Mexico. Swainson's hawk migrates north to California in March and early April to establish breeding territories and breeds from late March to late August, with the peak of breeding in late May through July. The hawks return to their wintering areas in Mexico in late August and early September.

Swainson's hawks in the Central Valley typically nest in isolated trees, small wooded groves, and large woodlands near open grasslands and agricultural fields. They often nest near riparian areas but are also known to nest in urban areas. Nests are typically close to suitable foraging habitats consisting of irrigated pastures, alfalfa fields and other hay crops, low-growing row crops, annual grasslands, and fallow fields.

The CNDDDB contains a record of Swainson's hawks nesting on a tree on a mid-channel island in the American River just upstream of the Howe Avenue bridge. A 2006 survey located several nesting pairs within five miles of the project area, including one along Morrison Creek where the creek crosses Jackson Highway, 2.7 miles east of the site. This nesting territory was determined to be active through project-related surveys in 2009. Another 2006 nest site was near Jackson Highway and Excelsior Road, approximately four miles from the project site.

Thorough surveys of all potential nesting trees on-site did not detect Swainson's hawks. However, because suitable nest trees occur on-site, the Swainson's hawk could utilize these trees for nesting in the future. The project site contains agricultural fields that provide suitable foraging habitat that may be used currently. Therefore, this species has high potential to occur on-site.

Tricolored Blackbird

The tricolored blackbird nests in large colonies established in large, dense thickets of blackberry, bulrush, cattails, willows, and wild roses, usually near wetlands or irrigated pasture. The colonies can be occupied by thousands of nesting pairs. The birds forage in large groups on surrounding agricultural fields and grasslands to harvest seeds and insects.

The CNDDDB contains six recent records of colonies within five miles east and southeast of the project site. These nesting colonies occur in blackberry thickets and cattail marshes along natural and artificial drainages surrounded by grassland areas for foraging.

This species has been documented using the project site. In May 2009, tricolored blackbirds were observed foraging on-site in the reclaimed agricultural lands. The birds were commuting from a potential nesting colony within cattails in a pond on the Teichert Perkins plant, which is located across Jackson Road, north of the project site. As such, the species has high potential to occur within the project site. However, tricolored blackbird nests were not observed on the project site and conditions appear marginal to support nesting, presumably as a result of routine vegetation maintenance that limits development of larger dense patches of Himalayan berry.

Western Burrowing Owl

The burrowing owl nests in ground burrows in open, dry grasslands and forages in surrounding open areas, typically annual grassland and ruderal vegetation. Their nests are often placed in burrows previously occupied by California ground squirrels. The CNDDDB contains six records of burrowing owls within five miles of the project site. Only two of these sites have been observed to support burrowing owls in the last 10 years and therefore are presumed to continue to support owls.

Biologists searched for burrowing owls during reconnaissance surveys of the project site in February and May of 2009. Owls or occupied burrow sites were not observed during field surveys. However, the potential exists that the species could occur on-site or could occupy the site in the future, because suitable foraging and nesting habitat does exist. Accordingly, this species has moderate potential to occur within the project site.

Northern Harrier

The northern harrier is a large raptor that forages in open wetlands, meadows, grasslands, croplands, and riparian woodlands where it takes small mammals, birds, reptiles, and frogs. The northern harrier finds prey by flying low over open habitats and nests on a platform of vegetation placed on the ground in these open habitats. CNDDDB does not contain records of this raptor species in surrounding lands.

The project site has low to moderate potential for occurrences of the harrier for foraging in harvested agricultural fields during the nonbreeding season. Nesting of the species is unlikely because most areas are frequently disturbed by maintenance or other operations.

White-tailed Kite

The white-tailed kite is a medium-sized raptor that resides year-round in lowland areas of California. The white-tailed kite forages in open areas such as grasslands and agricultural fields where the bird hovers searching for small mammals. The kite places nests within dense foliage in the upper branches of large trees growing near suitable foraging habitats. CNDDDB contains six records of nest sites of the white-tailed kite in large trees within five miles of the project site.

The project site has moderate potential for occurrences of the kite foraging in agricultural fields and other open habitats and for nesting. Although surveys of the project site did not detect any current nests of the kite, the bird could potentially nest in the site's large isolated trees in the future.

Northwestern Pond Turtle

The northwestern pond turtle uses permanent ponds, lakes, streams, and irrigation ditches throughout interior California. In the northwestern pond turtle's aquatic habitats, the turtle requires basking sites comprised of logs, rocks, mud banks, or floating vegetation. CNDDDB has one record of the turtle within five miles of the project site; the turtle was observed in 1995 in Morrison Creek near Mather Air Force Base approximately three miles directly east of the site.

The project site is considered to have low potential for occurrences of the pond turtle. On-site reconnaissance surveys did not detect any pond turtles, and the ponds and drainages on-site are often turbid and are regularly maintained and therefore considered to provide only marginal habitat.

Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle (VELB) occurs only in California's Central Valley where the VELB inhabits shrubs of blue elderberry (*Sambucus mexicana*) in riparian habitats. The VELB's larvae feed on the pith of elderberry stems and the adults feed on elderberry foliage and flowers. The VELB's threatened status results from the loss of riparian habitats along California's streams and rivers. Recently, the United States Fish and Wildlife Service (USFWS) recommended the species for delisting under the federal ESA but this has not yet occurred. The USFWS is currently in the process of developing a post-delisting monitoring plan for VELB. CNDDDB has two records of the VELB within five miles of the project site; both of these records are from the riparian floodplain of the American River downstream from the H Street Bridge in Sacramento.

The project site has low potential to support occurrences of the VELB.

Boggs Lake Hedge-Hyssop and Sanford's Arrowhead

Boggs Lake hedge-hyssop and Sanford's arrowhead were the only special-status plants for which potentially suitable habitat was considered to be present at the project site (See Table 5.2-4). Surveys for these plants were conducted in the only potential habitat – the wetland fringes of the industrial washwater retention ponds at the proposed project site. These areas are considered only marginally suitable potential habitat for Sanford's arrowhead and Boggs Lake hedge-hyssop. Individuals of these species were not discovered during the protocol-level surveys. As noted above, the project site is significantly disturbed by past mining activities and ongoing operations, such as the transfer of aggregate materials along the conveyor belt system, surge pile operations, and drying bed operations. The site is also significantly disturbed by ongoing maintenance activities associated with the ongoing operations. As a result, the washwater retention ponds are considered unsuitable for the two species. Therefore, the species are not considered to be present on-site.

Nesting Raptors and Other Birds

The only nesting raptor observed on-site was the red-tailed hawk in 2009. A nesting pair was observed defending three maintained nests in adjacent trees at Pond 1 during both spring field surveys. Young were not seen within nests, but nestlings may have been present and not visible. Previous regional raptor surveys did not detect nesting raptors on-site.

Wildlife Species with Potential to be Hazardous to Aviation

The proposed project site is located approximately three miles from the west end of the Mather Airport runway. Therefore, use of the project site by wildlife species potentially hazardous to airport operations was characterized through surveys of the project site and knowledge of habitat conditions and species use in nearby areas. Potentially hazardous species were identified from FAA sources. Waterbird and raptor use of the site was evaluated through on-site surveys, in part because of their importance in assessing hazards.

Waterbird Habitats and Use

Waterfowl and other aquatic species were surveyed in February 2009 during the period of peak abundance by wintering species (Sacramento Audubon Society) and during May 2009 for breeding species. Numbers of waterbirds observed in industrial retention ponds on-site are shown in Table 5.2-5. Numbers for Industrial Ponds 2, 3 and 4 were combined because they are immediately adjacent to one another.

Species	Total Individuals	
	February	May
Pied-billed grebe		2
Double-crested cormorant	3	
Mallard	6	5
Gadwall	10	
Canvasback	4	
Ring-necked duck	41	2
Bufflehead	12	
American coot	16	1
Total	91	10

Source: Airola Environmental Consulting and Gibson & Skordal, LLC, Biological and Wetlands Resources Evaluation for the Aspen I Project, City of Sacramento, California, September 4, 2009.

The survey results provide a good generalized characterization of waterbird use on-site. The key results are as follows:

- Moderate numbers of potentially hazardous waterbirds (8.6 birds per acre) occurred at the ponds on-site during winter, while numbers were low in spring and summer (0.1 bird per acre);
- Waterbird use is dominated by diving species (grebe, cormorant, canvasback, ring-necked duck, bufflehead, and coot) that tend to use the deeper water habitats that predominate at the ponds, with lesser numbers of dabbling ducks (mallard, gadwall); and
- Waterbirds were most abundant during the winter, comprising 90 percent of total waterbird use across both months of observation.

Raptors

As noted previously under Nesting Raptors and Other Birds, the only nesting raptor species observed at the project site in 2009 was the red-tailed hawk. Other raptors that may make use

of the site during summer include white-tailed kite, Cooper's hawk, Swainson's hawk, and American kestrel. Additional wintering species could include the northern harrier, sharp-shinned hawk, and merlin.

5.2.2 REGULATORY BACKGROUND

The Regulatory Background section describes federal, State, and local laws and policies that are relevant to this assessment of biological and wetlands resources on the properties that comprise the Aspen 1-New Brighton project.

Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 protects species that are federally listed as endangered or threatened with extinction. FESA prohibits the unauthorized "take" of listed species. Take includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such activities. Harm includes significant modifications or degradations of habitats that may cause death or injury to protected species by impairing their behavioral patterns. Harassment includes disruption of normal behavior patterns that may result in injury to or mortality of protected species. Civil or criminal penalties can be levied against persons convicted of "take."

Clean Water Act Section 404

Section 404 of the Federal Clean Water Act requires that a Department of the Army permit be issued prior to the discharge of any dredged or fill material into waters of the United States, including wetlands. The U. S. Army Corps of Engineers (USACE) implements this program, with oversight from the U. S. Environmental Protection Agency. Waters of the United States include all navigable waters; interstate waters and wetlands; all intrastate waters and wetlands that could affect interstate or foreign commerce; impoundments of the above; tributaries of the above; territorial seas; and wetlands adjacent to the above. Typically, the USACE does not recognize as jurisdictional waters of the U.S. areas that are "[...] water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel, unless or until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States." (33CFR Part 328, preamble.)

Clean Water Act, Section 401

Section 401 of the Clean Water Act requires any applicant for a 404 permit in support of activities that may result in any discharge into waters of the United States to obtain a water quality certification. This program is meant to protect these waters and wetlands by ensuring that waste discharged into them meets state water quality standards. Because the water quality certification program is triggered by the need for a Section 404 permit (and both programs are a part of the Clean Water Act), the definition of waters of the United States under Section 401 is the same as that used by the USACE under Section 404.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any native migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11.). Likewise, Section 3513 of the California Fish & Game Code prohibits the “take or possession” of any migratory non-game bird identified under the MBTA. Therefore, activities that may result in the injury or mortality of native migratory bird, including eggs and nestlings, would be prohibited under the MBTA.

State Regulations

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires evaluations of project effects on biological resources. Determining the significance of those effects is guided by Appendix G of the CEQA guidelines. These evaluations must consider direct effects on a biological resource within the project site itself, indirect effects on adjacent resources, and cumulative effects within a larger area or region. Effects can be locally important but not significant according to CEQA if they would not substantially affect the regional population of the biological resource. Significant adverse impacts on biological resources would include the following:

- Substantial adverse effects on any species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations or by the CDFG or the USFWS (these effects could be either direct or via habitat modification);
- Substantial adverse impacts to species designated by the CDFG as Species of Special Concern;
- Substantial adverse effects on riparian habitat or other sensitive habitat identified in local or regional plans, policies, or regulations or by the CDFG and the USFWS;
- Substantial adverse effects on federally protected wetlands defined under Section 404 of the Clean Water Act (these effects include direct removal, filling, or hydrologic interruption of marshes, vernal pools, coastal wetlands, or other wetland types);
- Substantial interference with movements of native resident or migratory fish or wildlife species population, or with use of native wildlife nursery sites;
- Conflicts with local policies or ordinances protecting biological resources (e.g., tree preservation policies); and
- Conflict with provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

State Endangered Species Act

The California Endangered Species Act (CESA) of 1984 protects state-designated endangered and threatened species in a way similar to FESA. For projects on private property (i.e. that for which a state agency is not a lead agency), CESA enables the CDFG to authorize take of a listed species that is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code Section 2081).

California Water Code, Porter-Cologne Act

The Porter Cologne Act, from Division 7 of the California Water Code, requires any person discharging waste or proposing to discharge waste that could affect the quality of waters of the state to file a report of waste discharge (RWD) with the Regional Water Quality Control Board (Board). The Board can waive the filing of a report, but once a report is filed, the Board must either waive or adopt water discharge requirements (WDRs). "Waters of the state" are defined as any surface water or groundwater, including saline waters, within the boundaries of the state.

CDFG Code Section 1600 – Streambed and Lake Alteration

The CDFG is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the Fish and Game Code, Section 1602, requires notification to the CDFG of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, state or local government agency, or public utility that proposes an activity that will:

- Substantially divert or obstruct the natural flow of any river, stream or lake;
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

For the purposes of Section 1602, rivers, streams and lakes must flow at least intermittently through a bed or channel. If notification is required and the CDFG believes the proposed activity is likely to result in adverse harm to the natural environment, it will require that the parties enter into a Lake or Streambed Alteration Agreement (LSAA).

California Fish and Game Code Section 3503.5 – Raptor Nests

Section 3503.5 of the CDFG Code makes it unlawful to take, possess, or destroy hawks or owl, unless permitted to do so, or to destroy the nest or eggs of any hawk or owl.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The following *Sacramento 2030 General Plan* goals and policies are applicable to biological resources.

Environmental Resources: Biological Resources

Goal ER 2.1 Natural and Open Space Protection. Protect and enhance open space, natural areas, and significant wildlife and vegetation in the city as integral parts of a sustainable environment within a larger regional ecosystem.

- Policy 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.
- Policy 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.
- Policy 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.
- Policy ER 2.1.7 Annual Grasslands. The City shall preserve and protect grasslands and vernal pools that provide habitat for rare and endangered species. If not feasible, the mitigation of all adverse impacts on annual grasslands shall comply with State and Federal regulations protecting foraging habitat for those species known to utilize this habitat.
- Policy 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 preconstruction 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.

City of Sacramento Heritage Tree Ordinance

Sacramento City Code Chapter 12.64.020 provides policy regarding heritage trees within the City. Heritage trees are defined by this code as:

- Any tree of any species with a trunk circumference of 100 inches or more (i.e., >32 inches diameter), which is of good quality in terms of health, vigor of growth and conformity to generally accepted horticultural standards of shape and location for its species.
- Any native oak (*Quercus* species), California buckeye (*Aesculus californica*) or California sycamore (*Platanus racemosa*), having a circumference of 36 inches or greater (>11.5 inches diameter) when a single trunk, or a cumulative circumference of thirty-six inches or greater when a multi-trunk, which is of good quality in terms of health, vigor of growth and conformity to generally accepted horticultural standards of shape and location for its species.
- Any tree 36 inches in circumference or greater (>11.5 inches diameter) in a riparian zone. The riparian zone is measured from the centerline of the water course to thirty (30) feet beyond high water line.
- Any tree, grove of trees or woodland trees designated by resolution of the city council to be of special historical or environmental value or of significant community benefit. (Ord. 2008-018 § 3; prior code § 45.04.211).

Heritage trees may be removed only with issuance of a written permit from the City's Director of the Department of Transportation or an authorized representative. The code states that "[...] the permit shall be granted by the director if he or she finds: 1) that the heritage tree must be removed in order for the applicant to use the property for any use permitted... and the use could not be made of the property unless the tree is removed" or that such activity is necessary "to engage in construction activity on the property."

Sacramento County General Plan

Sacramento County General Plan Policy CO-62 currently provides protection to aquatic ecosystems. Specifically, the policy "[...] ensures no net loss of marsh and riparian woodland acreage, values, or functions." The General Plan also seeks to protect landmark and native trees (collectively referred to as "protected trees"). "Landmark trees" are defined as "any non-oak native tree measuring 19 inches in diameter at breast height." Policy CO-130 encourages protection and preservation of native oak trees and other native trees (excluding cottonwoods) and landmark trees.

Sacramento County Tree Preservation and Protection Code (Sacramento County Code 19.12.060)

Sacramento County outlines their requirements regarding the protection of trees in County Code 19.12.060. The County Code includes the following statement:

"No person shall trench, grade or fill within the dripline of any tree or destroy, kill or remove any tree as defined, in the designated urban area of the unincorporated area of Sacramento County, on any property, public or private, without a tree permit, or unless authorized as a condition of a discretionary project approval by the Board of Supervisors,

County Planning Commission, Zoning Board of Appeals, the Zoning Administrator or the Subdivision Review Committee. (SCC 1400 § 23, 2008; SCC 480 § 1, 1981.).

Sacramento County Code (Section 19.12.040) defines trees as follows;

Tree: As used in this chapter, a “tree” shall mean any living native oak tree having at least one trunk of six inches or more in diameter measured four and one-half feet above the ground, or a multi-trunked native oak tree having an aggregate diameter of ten inches or more, measured four and one-half feet above the ground (dbh).

Other Statutes, Codes, and Policies Affording Limited Species Protection

California Native Plant Society

The California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California (Tibor, 2001). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The following identifies the definitions of the CNPS listings:

- | | |
|----------|--|
| List 1A: | Plants believed extinct. |
| List 1B: | Plants rare, threatened, or endangered in California and elsewhere. |
| List 2: | Plants rare, threatened, or endangered in California, but more numerous elsewhere. |
| List 3: | Plants about which we need more information - a review list. |
| List 4: | Plants of limited distribution - a watch list. |

5.2.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, an impact to biological resources would be considered significant if the proposed project would:

- Create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal; or
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

Method of Analysis

Habitat Mapping and Description

Habitat mapping was conducted from aerial photography of the site (USGS 2002 and Teichert 2008) and was field verified during habitat evaluation and surveys for wetlands and special-status plants and animals.

Field Surveys and Characterization of Existing Biological Resources

Habitat evaluations and field surveys were conducted for wetlands and plant and animal species that were determined to have potential to occur at the project site.

Wetlands and Waters

A survey to assess and map wetlands and other waters was conducted on the project site by Gibson & Skordal, LLC on March 24, 2009. Two aerial photographs (from 2002 and 2008) were plotted at one inch equals 100 feet and used to locate the larger industrial ponds and artificial drainages that occurred on the project site. An on-the-ground pedestrian survey covered the entire site to determine if any smaller wetlands and other waters were present that were not readily visible on the aerial photos. All aquatic features not readily identifiable on the aerial photo were mapped in the field using a Trimble Geo-XT hand held Global Positioning System. During the site survey, all ponds, ditches and other waters were observed in the field and habitat descriptions were noted. The boundaries of the industrial retention ponds and drainage ditches (verified in the field during the site survey) were digitized using ARCGIS in the office after the site visit was completed.

Rare Plants

Prior to field surveys, the CNDDDB was searched to identify known occurrences of special-status plants that occur within the Sacramento East and Carmichael U.S. Geological Survey (USGS) quadrangle maps, covering the project site, and also within the ten adjacent quadrangles (Buffalo Creek, Citrus Heights, Clarksburg, Elk Grove, Florin, Folsom, Rio Linda, Sacramento West, Sloughhouse, and Taylor Monument).

The CNDDDB search indicated that the following twelve special-status plant species occur in the region surrounding the proposed project area: Brandegees clarkia (*Clarkia biloba ssp. brandegeeeae*); dwarf downingia (*Downingia pusilla*); stinkbells (*Fritillaria agrestis*); Boggs Lake hedge-hyssop (*Gratiola heterosepal*); wooly rose-mallow (*Hibiscus lasiocarpus*); Northern California black walnut (*Juglans hindsii*); legenere (*Legenere limosa*); pincushion navarretia (*Navarretia myersii ssp. myersii*); slender Orcutt grass (*Orcuttia tenuis*); Sacramento Orcutt grass (*Orcuttia viscida*); and Sanford's arrowhead (*Sagittaria sanfordii*). The likelihood of occurrence of these species was evaluated based on species requirements and knowledge of on-site habitat conditions (See Table 5.2-4). Previous field surveys within the project area indicated that suitable habitat is present on the site for only two of the 12 species known to occur in the vicinity. Marginal habitat for these two species, Sanford's arrowhead (*Sagittaria sanfordii*) and Boggs lake hedge hyssop (*Gratiola heterosepala*), were considered to have potential to exist along shallow wetland fringes of washwater retention ponds located on the proposed project site.

A rare plant survey was conducted within the project area. Due to the highly disturbed nature of the project area, only those areas with suitable habitat for rare plants were surveyed (i.e., the industrial ponds). Rare plant surveys were conducted according to the protocols established by the CNPS and the CDFG by Gibson & Skordal on April 20 and July 1, 2009. As part of preparation for the field surveys, photographs and illustrations of each of the special-status species were examined. These survey periods were specifically selected to occur within the known flowering periods of the special-status plant species that could have potential to occur on-site, as determined by evaluating phenology of target species growing in nearby locations.

Protected Trees

A complete survey of the proposed project site was conducted for trees that meet the definition of City of Sacramento heritage trees (See Regulatory Setting section for definitions). The assessment only evaluated the size criteria for heritage eligibility, and did not assess tree condition, which is an additional criteria for heritage eligibility under the City's definition. For the off-site infrastructure areas, the County of Sacramento's definition for heritage and protected trees was utilized (See Regulatory Setting section for definitions). Field studies were conducted on June 11, 25, and September 16, 2009, and on September 9, February 24, and April 25, 2010. All trees and shrubs were examined, identified, and evaluated. With the exception of unusually branched trees, the circumferences of all trunks were measured approximately 4.5 feet above ground level.

Locations of all trees within the project area that could meet the City of Sacramento's definition of heritage trees or the County of Sacramento's definition of protected (e.g. native and landmark) trees were recorded using a Trimble GeoXT GPS unit equipped with sub-meter accuracy.

Wildlife Species

Wildlife surveys were conducted to evaluate habitat and assess occurrence of special-status species, evaluate general habitat conditions, and conduct surveys for species that have potential to pose hazards to aviation. Available information from the project vicinity including geographic information in the CNDDDB, previous surveys of nearby lands (Airola 2007a, b; Foothill Associates 2007a, b), and previous raptor surveys (J. Estep, pers. comm.) was reviewed prior to conducting surveys.

Surveys were conducted at the project site on February 27 and May 6, 2009, and on February 17 and June 2, 2010. All areas of the project site were examined to characterize habitat conditions, as well as habitat suitability and use by special-status species, including the Swainson's hawk, burrowing owl, and tricolored blackbird. All project area trees were examined for nest sites of raptors and other larger species in February 2009 and 2010, before leaf-out of deciduous trees, to detect early-nesting species and to identify residual 2008 and 2009 nest sites. Surveys in May 2009 verified previously identified nest sites and searched for late nesting species, including the Swainson's hawk. Industrial ponds were examined in February and March 2009 and February 2010 to enumerate waterbirds that could pose hazards to aviation. Tricolored blackbirds were surveyed for in agricultural lands during the two breeding season visits to the Project site in both 2009 and 2010. General wildlife species were noted incidentally during all surveys.

In addition, surveys for federally listed vernal pool invertebrates and valley elderberry longhorn beetle were conducted by Samuel Garcia and Matt Hirkala of Gibson & Skordal. Surveys for elderberry shrubs (*Sambucus sp.*), the host plant of the valley elderberry longhorn beetle, were conducted on April 21 and July 1, 2009 in association with the rare plant survey effort. Protocol surveys (authorized by the USFWS) were conducted during the 2009/2010 wet season and again during the 2010/2011 wet season (the 2010/2011 survey was ongoing at the time of publication). All potential habitat for federally listed vernal pool crustaceans (depressional seasonal wetlands) located in the Project area were subject to the protocol survey.

Characterization of Post-Aggregate Operations/Pre-Project Conditions

The project is proposed to be initiated after mining uses of the site are completed. Most of the existing site conditions are substantially influenced by past aggregate mining operations as well as aspects of the ongoing mining operation, including storage of wash water, operation of drying beds, and use and maintenance of roads and conveyor facilities for transport of aggregate to the Teichert Perkins plant. Therefore, conditions at the site at the time of initiation of construction likely will differ somewhat from existing conditions, as would impacts after implementation of the project.

To fully characterize the project's impacts where post-mining conditions are likely to differ from existing conditions, this chapter describes both the expected conditions at the time of mining completion and project start-up. This characterization is based on a projection of habitat conditions that would result from cessation of mining operations described above.

Impact Characterization

Project impacts were characterized by evaluating the potential changes in habitat conditions relative to existing site conditions, consistent with CEQA. Project impacts also were evaluated relative to post-mining site conditions because this will be the likely environmental setting at the time project construction begins. It should be noted that this chapter incorporates environmental commitments that the project applicant has agreed to implement as a part of the proposed project.

Project-Specific Impacts and Mitigation Measures

5.2-1 Impacts to wetlands and associated resources.

As discussed above, seven industrial ponds and eight artificial drainage ditches are present within the project area. The industrial ponds total 11.81 acres and the ditches total 1.49 acres. Vegetation associated with the industrial ponds ranges from limited amounts of mature woody species, disturbed riparian forest and scrub, and emergent vegetation, while the ditches support only annual grasses. The industrial ponds and artificial drainage ditches have been regularly maintained in the past and continue to be maintained as needed as part of Teichert Aggregates' aggregate operations and site reclamation, including periodic vegetation removal.

Development of the proposed project would eliminate all seven industrial ponds and all portions of the eight drainage ditches within the project area. The project's effects on wetlands and waters subject to federal and State jurisdiction follow. As discussed previously, the hydrology of all 15 of these features depends mostly on water associated with ongoing aggregate extraction and reclamation operations. When these uses cease, the existing site hydrology will also be interrupted and the aquatic components of the habitat associated with these seven features will likely be eliminated or significantly reduced. Development of the project would also eliminate 0.25-acre of seasonal wetlands due to the construction of the retention basin and the disposal of the material excavated for the drainage channel and retention basin on the Mayhew property over the remainder of the Mayhew site.

Impacts to Wetlands and Other Waters of the United States

As described previously in the Regulatory Setting section, the USACE does not typically consider “water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel” to be waters of the United States unless the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (33CFR Part 328, preamble). The features present on the proposed project site consist of four industrial ponds and four artificial drainage ditches, all of which are part of an active, ongoing operation, and all of which are located below historic grade at the bottom of a historically mined area. Additionally, three industrial ponds and portions of four artificial drainage ditches would be impacted by the development of off-site infrastructure. Two of the three (all but the industrial pond on the Mayhew property) are part of the active, ongoing operation. By the USACE definition, these are not waters of the United States. Moreover, should the operations on-site cease and these features retain characteristics necessary for potential classification as waters of the United States, as is the case for the third off-site industrial pond (on the Mayhew property), their position in the landscape – 30 feet lower than the natural ground surface – isolates them from any other water of the United States. These features do not receive waters of the United States, nor are they tributary to waters of the United States. As such, the features would not be jurisdictional features, per the USACE definition.

The 0.25-acre of seasonal wetland on the Mayhew property has reformed since the abandonment of the site, and the position of the wetland in the landscape – approximately 30 feet lower than the natural ground surface – isolates them from any other water of the United States. In addition, the wetland does not receive waters of the United States, nor is the wetland tributary to waters of the United States. As such, the wetland would not be a jurisdictional feature, per the USACE definition.

Because these features are not waters of the United States, the discharge of fill material into them is not regulated by either Section 404 or Section 401 of the Clean Water Act; therefore the impact to jurisdictional wetlands or other waters of the United States would be *less than significant*.

Impacts to Waters of the State

As discussed above, “waters of the state” are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. Six of the seven artificial industrial ponds and all of the drainage ditches on the project site were created for use in the aggregate operations and have been subject to regular maintenance activities. The seventh industrial pond (on the Mayhew property) was created for use in aggregate operations, but has since been abandoned and has not been subject to regular maintenance. The shape and size of all of these industrial ponds have been altered and managed as needed for aggregate recovery and reclamation operations, and the drainage ditches have been heavily maintained to ensure the correct operation of the facility. The industrial ponds and ditches sit approximately 30 feet below natural grade. These features are not natural and are completely isolated from surrounding natural features. In addition, it is not expected that a Report of Waste Discharge will be required.

As discussed above, the 0.25-acre of seasonal wetland on the Mayhew property has reformed since the abandonment of the site, and the position of the wetland in the landscape – approximately 30 feet lower than the natural ground surface – isolates them from any other water of the United States. In addition, the wetland does not receive waters of the United States, nor is the wetland tributary to waters of the United States. However, isolation does not eliminate these features from regulation under the Porter Cologne Act of the California Water Code. Furthermore, the *Sacramento County General Plan* contains a policy requiring mitigation for the loss of any wetland, even if isolated. Therefore, impacts to waters of the State would be *potentially significant*.

Impacts to Streambed and Lake Habitats

Pursuant to Section 1600 of the CDFG Code, the CDFG regulates impacts to the bed, bank, or channel of rivers, streams, and lakes. Six of the seven industrial ponds and all eight of the drainage ditches are part of an active aggregate operation and all sit at the bottom of a historically mined area. Their position in the landscape – 30 feet lower than the natural ground surface – isolates them from any other water or wetland. In addition, they do not receive waters from, or drain to, rivers, streams, or lakes. Because these features are not physically connected to any river, stream or lake, their elimination would not modify any natural river, stream, or lake, and it is not expected that a Lakebed/Streambed Alteration Agreement would be required. Therefore, the proposed project would have a *less than significant* impact in regard to streambed and lake habitats.

Conclusion

Implementation of the proposed project would not result in impacts to wetlands or other waters of the United States or streambed or lake habitats. However, the project would result in a ***potentially significant*** impact to waters of the State.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

5.2-1 *Prior to the issuance of a grading permit, the project applicant shall either create 0.25-acre of seasonal wetland habitat or purchase 0.25-acre of seasonal wetland credits at an agency-approved mitigation bank with a service area covering the project site.*

5.2-2 Impacts related to the loss of federally listed vernal pool crustacean habitat.

Vernal pool fairy shrimp and vernal pool tadpole shrimp have been documented in multiple locations within five miles of the project site. In addition, potential habitat for these species occurs in the off-site improvements area within the Mayhew property. The USFWS survey protocol for these species requires two wet season surveys be conducted in order to determine if these species are absent or present in potential habitats. As a result, surveys for these species (authorized by the USFWS) were conducted by Gibson & Skordal. At the time of completion of the biological resources assessment, the first of the two wet season surveys has been completed (2009/2010) and the second (2010/2011) wet season survey was in process. To date, vernal pool

fairy shrimp and/or vernal pool tadpole shrimp have not been observed within the potential habitats located within the project area.

The seasonal wetlands on the Mayhew property are subject to very short inundation periods and these features typically do not pond water continuously for more than three weeks. Most of the seasonal wetlands on-site do not pond water continuously for more than two weeks. As a result, it is likely that these species do not occur within the project area and impacts to the species would not result. However, the second wet season survey is still in process and, if these species are observed within the project area during the remainder of the survey, the project's impact would be **potentially significant**.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

5.2-2 *If vernal pool fairy shrimp or tadpole shrimp are discovered during the second wet season survey, the project applicant shall communicate with USFWS regarding potential impacts to vernal pool crustacean species. Based on the results of the communication, the project applicant shall comply with the Endangered Species Act, including obtaining an incidental take permit, if it is determined that take will, in fact, occur. Mitigation requirements for take of vernal pool fairy shrimp and vernal pool tadpole shrimp shall be consistent with the "Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California."*

5.2-3 Impacts related to the loss of Swainson's hawk foraging habitat.

The presence of a Swainson's hawk nest within 2.7 miles of the project's residential development areas and within 0.6-mile of the off-site facilities, as well as the presence of other nesting pairs within five miles, indicates the possibility that the project site is used as part of the foraging range of the species. Suitable foraging habitat on-site is limited to the reclaimed agricultural land and more extensive areas of disturbed annual grasslands habitat. The following habitats are not considered suitable foraging habitat: industrial ponds, drying beds, recently mined areas, roads, conveyor route, and other industrial and steep lands on the sides of the pit that support little or no vegetation, and small isolated areas of ruderal habitat.

The proposed project would remove approximately 50 acres of agricultural habitat suitable for Swainson's hawk foraging within on-site lands proposed for development. In addition, off-site borrow and fill areas, as well as drainage and stormwater retention facilities, would together modify an additional 136 acres of reclaimed agricultural lands and annual grassland that serves as suitable foraging habitat (See Table 5.2-1). After development of the project, however, some of the open grassland/ruderal habitat could retain some foraging value.

The quality of the foraging habitat and level of potential use by Swainson's hawks is influenced by the size of the area of suitable habitat and the overall conditions on other lands on-site and on surrounding lands. A majority of the lands within two miles of the

project site is developed for industrial or residential uses or actively mined. Areas of suitable foraging habitat within this location are limited to several relatively small, scattered patches of irrigated pasture and alfalfa, and some residual annual grassland. The fragmented condition of the foraging habitat on-site may explain why Red-tailed hawks, but not Swainson's hawks, nest within the project area.

On-Site Foraging Habitat

It should be noted that mitigation requirements for loss of Swainson's hawk foraging habitat were calculated using different methods required by the City and County of Sacramento for lands under their jurisdictions. Mitigation for loss of foraging habitat within the residential development area (under jurisdiction of the City of Sacramento) was determined based on CDFG's model mitigation guidelines (California Department of Fish and Game 1994). In order to mitigate for the loss of foraging habitat, the CDFG's model guidelines provide that a project proponent must provide "Habitat Management" (HM) lands to CDFG based on the following ratios:

- a. Projects within one mile of an active nest tree shall provide:
 - One acre of HM land for each acre of development authorized (1:1 ratio) where 10 percent of the HM land requirement is met by fee title acquisition or a conservation easement allowing for the active management of the foraging habitat, and the remaining 90% of the HM land is protected by a conservation easement on agricultural land or other suitable foraging habitat land; or
 - One-half acre of HM land for each acre of development authorized (0.5:1 ratio) where all of the HM land requirement is met by fee title acquisition or a conservation easement allowing for active management of the habitat for prey production.
- b. Projects within five miles for an active nest tree but greater than one mile from the nest tree shall provide 0.75 acres of HM land for each acre of urban development authorized (0.75:1 ratio). All HM lands acquired must be protected by fee title acquisition or a conservation easement.
- c. Projects within 10 miles of an active nest tree but greater than five miles from an active nest tree shall provide 0.5 acres of HM land for each acre of urban development authorized (0.5:1 ratio). All HM lands acquired must be protected by fee title acquisition or a conservation easement.

All suitable foraging habitat within the project's lands in the City are within the CDFG's one- to five-mile distance class to the nearest nest site. Therefore, the appropriate mitigation ratio for on-site foraging habitat loss is 0.75:1. As applied to the 50 acres of suitable on-site foraging habitat within the City lands, 38 acres of mitigation is required.

Off-Site Foraging Habitat

Off-site actions would modify areas considered to be suitable foraging habitat for the Swainson's hawk, including agricultural lands and disturbed annual grassland. Most impacts to these areas would be temporary in nature, as most lands would return to

ruderal-grassland condition. Regardless of these temporarily and potential minor permanent impacts, mitigation for loss of Swainson's hawk foraging habitat in Sacramento County is determined based on guidance in its mitigation policy, which has been approved by CDFG. This mitigation program recognizes the diminished foraging habitat value to Swainson's hawks of lands that are fragmented or degraded by previous developed land uses on-site and adjacent uses (Sacramento County Department of Environmental Review and Assessment 2009). The County's program requires mitigation for impacts to foraging habitat only when land is rezoned from agricultural to urban land use designations, or when an applicant requests land use entitlements for "non-agricultural uses of land zoned with an agricultural designation." The off-site portions of the proposed project do not require rezoning from agricultural designations, nor is the applicant requesting entitlements for non-agricultural uses of agriculturally-zoned property in order to implement these off-site components. Therefore, impacts to off-site foraging habitat would be considered *less than significant*.

Conclusion

Notwithstanding the relatively low value of potential foraging habitat on-site, because implementation of the project would result in the loss of Swainson's hawk foraging habitat on the project site, a ***potentially significant*** impact would result.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

5.2-3 *Prior to the issuance of a grading permit, the project applicant shall dedicate land at a ratio of 0.75:1 (38 acres for the proposed project). The location of the replacement foraging habitat shall be coordinated with, and approved by, the California Department of Fish and Game, and shall be acquired prior to development of the project site.*

5.2-4 Impacts related to the disturbance or removal of an active Swainson's hawk nest.

Although Swainson's hawks have not been observed nesting within the project site, suitable nest trees are present. Therefore the possibility exists that Swainson's hawks could be nesting on the site at the time of project implementation. Construction activities and habitat modification at or near an active nest site during the active nesting season (March 30 to August 15) could disrupt nesting activities and thereby reduce reproductive success or cause direct or indirect mortality of nestlings. Therefore, impacts to active Swainson's hawk nests would be ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less than significant* level.

5.2-4 *One of the following mitigation options shall be implemented by the project applicant to avoid disturbing or removing any active Swainson's hawk nest tree at the time of project implementation:*

- *If project construction plans require removal of a tree that represents potential nesting habitat for Swainson's hawk and other raptors, the project applicant shall remove such trees during the non-nesting season, prior to initiation of major construction.*

Or

- *If suitable raptor nest trees are on-site and construction is planned during the nesting season for the Swainson's hawk or other raptors, the project applicant shall conduct preconstruction surveys to determine if raptors are using suitable nest trees. If Swainson's hawks or other raptors have active nests on the property, construction shall be avoided within a buffer area designated to protect the nesting pair. The size of the buffer will be determined by a qualified biologist with experience in raptor nest protection and will be based on the location of the nest, the background level of disturbance in the nest area (i.e., from ongoing aggregate operation activities and land use activities on adjacent lands), and observed reactions of the nesting hawks to human activity.*

5.2-5 Impacts related to the loss of occupied burrowing owl habitat.

Burrowing owls have not been observed within the proposed project area, including during any reconnaissance surveys that were performed. However, because suitable habitat for burrowing owls exists on-site, the potential exists for burrowing owls to be present and not have been detected, or for the owls to colonize the site prior to construction. If the site is occupied by burrowing owls, then construction could lead to mortality or reproductive disruption. Therefore, the project's impact related to the potential loss of occupied burrowing owl habitat would be **potentially significant**.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

- 5.2-5 *Prior to construction, the project applicant shall initiate preconstruction surveys of the project site to determine if burrowing owls are present during the non-nesting season prior to any breeding season construction. If burrowing owls are not present, further mitigation is not required. If occupied burrows are found during the non-breeding season, the project applicant shall implement standard "passive relocation" measures to exclude burrowing owls from burrows that need to be disturbed, consistent with CDFG guidelines. If breeding owls are found on-site during the nesting season, the project applicant shall establish a no-disturbance buffer around nesting burrows until the nesting is completed. The buffer distance and verification of completion of nesting will be determined by a qualified biologist with experience working with burrowing owls and construction activities. If it is not feasible to avoid removal of nesting burrows, the project applicant shall consult with the CDFG to determine if any options for active nest relocation are feasible.*

5.2-6 Impacts related to the loss of tricolored blackbird foraging habitat.

Suitable nesting habitat for the tricolored blackbird does not currently exist on the proposed project site. However, the tricolored blackbird was observed likely nesting on an adjacent property in 2009 and was observed foraging within the reclaimed agricultural lands within the project site. The foraging habitat used by the blackbirds also constitutes the potential foraging habitat for the Swainson's hawk (See Impact 5.2-3). The loss of occupied foraging habitat for the tricolored blackbird would be a **potentially significant** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

5.2-6 *Implement Mitigation Measure 5.2-3.*

5.2-7 Impacts related to the loss of marginal habitat for the northwestern pond turtle.

Elimination of the industrial ponds on-site would eliminate habitat that has marginal potential to support the northwestern pond turtle. The northwestern pond turtle was not observed on-site and is considered unlikely to use the area due to the high level of disturbance of the industrial ponds, as a result of industrial uses and periodic maintenance. Therefore, loss of this marginal habitat is considered to be a **less than significant** impact, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.2-8 Impacts related to the loss of habitat for the valley elderberry longhorn beetle.

The only elderberry shrub (which provides habitat for the VELB) detected during complete surveys was on one of the high voltage power line pedestals on the site, which would not be disturbed by project activities because the project includes 100-foot setbacks from the power line towers, within which the residential, commercial, and urban farm uses would not be allowed to be developed. Therefore, impacts would not occur to any elderberry shrubs or potential VELBs currently within the project site or off-site areas, and the project would result in a **less than significant** impact related to the loss of habitat for the VELB.

Mitigation Measure(s)

None required.

5.2-9 Impacts to special-status plant species.

Protocol-level surveys conducted for Boggs Lake hedge-hyssop and Sanford's arrowhead did not locate either of the species in marginally suitable habitat surrounding industrial ponds at the site. Other special-status plant species are not considered to have the possibility to occur at the site, due to lack of suitable habitat. Therefore,

impacts to special-status plant species would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
None required.

5.2-10 Impacts related to the loss of active raptor nest trees.

An active red-tailed hawk nest was documented within the project site in 2009 and 2010 and other raptors have potential to nest there. Project construction that occurs during the nesting seasons for raptors and other native migratory birds could disturb or destroy active nests of raptors or other migratory birds. Loss of raptor nests would violate CDFG Code Section 3503.5 and the project's impact related to the loss of active raptor nest trees would be **potentially significant**.

As discussed above, Mitigation Measure 5.2-4 describes protection measures for the Swainson's hawk and other tree nesting raptors, including removal of nesting trees during the non-nesting season or establishment of no-disturbance buffers around nests. Implementation of these measures would ensure that active raptor nests would not be disturbed.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

5.2-10 *Implement Mitigation Measure 5.2-4.*

5.2-11 Impacts related to the loss of heritage and/or protected trees.

Implementation of the proposed project would result in the loss of 22 trees that qualify as heritage and/or protected trees within the approximately 232-acre on-site area. In addition, 31 protected trees within the approximately 222-acre off-site area would be removed. Protection of these trees is not feasible due to their current location in topographically low positions within the project site and the need to conduct grading prior to construction.

Removal of the trees on the project site would require a permit under Sacramento City Code Chapter 12.64.050. Pursuant to General Plan Policy ER 3.1.3, the City requires suitable mitigation for the removal of these trees. Removal of the off-site trees would require authorization from Sacramento County under Sacramento County Code Section 19.12.060. Pursuant to the County's General Plan, Policy CO-133, the County requires the establishment of an on-site mitigation area to ensure "no net loss" of native oak canopy. If the project site cannot support all of the required replacement trees, Policy CO-132 allows the applicant to deposit in the County's Tree Preservation Fund "a sum equivalent to the replacement cost of the number of trees that cannot be accommodated." In addition, if an on-site mitigation area is not available due to site limitations, Policy CO-136 allows the applicant to mitigate off-site for such impacts, provided the off-site area meets the following criteria:

- a. Equal or greater in area to the total area that is included within a radius of 30 feet of the dripline of all trees to be removed;
- b. Adjacent to a protected stream corridor or other preserved natural areas;
- c. Supports a significant number of native broadleaf trees; and
- d. Offers good potential for continued regeneration of an integrated woodland community.

The project would result in the removal of 22 trees that qualify as heritage and/or protected trees within the approximately 232-acre on-site area and 31 protected trees within the approximately 222-acre off-site area. Because the proposed project does not include a tree mitigation plan that identifies the number and location of replacement trees to be planted, the project would result in a **potentially significant** impact to heritage and protected trees.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

- 5.2-11 *Prior to construction, the project applicant shall submit for the review and approval of the City of Sacramento Planning Department and the Sacramento County Community Planning and Development Department a tree mitigation plan that identifies the number and location of trees that will be planted as replacement trees. If the project site cannot support all of the required replacement trees, the applicant shall deposit in the County's Tree Preservation Fund a sum equivalent to the replacement cost of the number of trees that cannot be accommodated. In addition, if an on-site mitigation area is not available due to site limitations, the applicant shall mitigate off-site for the impacts pursuant to Sacramento County General Plan Policy CO-136.*

Cumulative Impacts and Mitigation Measures

5.2-12 Cumulative loss of biological resources in the City of Sacramento and the effects of ongoing urbanization in the region.

As defined in Section 15355 of the State CEQA Guidelines, "cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects (CEQA Guidelines 15355).

An assessment of cumulative impacts should consider both impacts identified as significant as well as those impacts identified as less than significant for individual projects that may become significant in a collective sense when considering the co-occurrence of multiple projects.

The Sacramento area is experiencing urban growth. Several housing developments are already approved or planned in the surrounding areas. Cumulatively, these projects

would reduce common wildlife habitat and the numbers of special-status plant and animal species. The proximity of the project site to natural riparian habitat could provide habitat for many common species and for several special-status species.

According to the *Sacramento 2030 General Plan Draft MEIR*, cumulative impacts related to implementation of the General Plan and regional buildout assumed in the Sacramento Valley could result in a regional loss of special-status plant or wildlife species or their habitat. The *Sacramento 2030 General Plan Draft MEIR* states:

As development in the city of Sacramento and in the greater Sacramento Valley continues, sensitive plant and wildlife species native to the region and their habitat, including those species listed under CESA and FESA and those individuals identified by state and federal resources agencies as Species of Concern, Fully Protected, or Sensitive, would be lost through conversion of existing open space to urban development [...] Thus, the conversion of plant and wildlife habitat on a regional level as a result of cumulative development would therefore result in a regional significant cumulative impact on special-status species and their habitats.

However, the *Sacramento 2030 General Plan Draft MEIR* determined that implementation of General Plan Draft MEIR Mitigation Measure 6.3-13 (which requires preconstruction surveys and/or Habitat Assessments for any individual development project within the policy area that requires discretionary approval) would assure that any impacted sensitive habitat could be replaced within the region, resulting in a less-than-considerable contribution to the region-wide loss of these species; therefore, the cumulative contribution to the regional loss of special-status and sensitive plants and wildlife and their habitat would not be significant. As required in the Project-Level Impacts and Mitigation Measures section of this chapter, the proposed project would be required to perform on-site surveys for special-status plant and wildlife species that have the potential to occur on-site, prior to any site disturbance. If the project-level mitigation measures were not implemented, however, the project's cumulative impacts would be **potentially significant**.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

5.2-12 *Implement Mitigation Measures 5.2-1 through 5.2-11.*

Endnotes

¹ Airola Environmental Consulting and Gibson & Skordal, LLC. *Biological and Wetlands Resources Evaluation for the Aspen I Project, City of Sacramento, California*. February 17, 2011.

² City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

³ City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

5.3 CULTURAL RESOURCES

5.3

CULTURAL RESOURCES

5.3.0 INTRODUCTION

The Cultural Resources chapter of the EIR addresses known historic and prehistoric resources in the Aspen 1-New Brighton project (proposed project) vicinity and the potential for unknown resources to exist. The analysis summarizes the existing setting and briefly describes the potential effects to historical, archaeological, and paleontological resources. The analysis will both identify the thresholds of significance of possible impacts associated with the project, and develop mitigation measures that would be necessary to reduce impacts to a less-than-significant level. Information for this chapter was drawn from the *Sacramento 2030 General Plan Master EIR* (MEIR),¹ the *Sacramento 2030 General Plan*,² and a *Cultural Resources Survey* prepared by SWCA Environmental Consultants, Inc. and revised by WAVE Consulting, Inc. (See Appendix H).³

5.3.1 EXISTING ENVIRONMENTAL SETTING

The proposed project is located within the southern Sacramento Valley, which is part of the Great Central Valley geomorphic province and is dotted with low natural hills. The Great Central Valley dominates the landscape of central California and is surrounded by the Sierra Nevada, Siskiyou Range, Tehachapi Range, and Coast Ranges. The Sacramento River drains the northern half of the valley (Sacramento Valley), and the San Joaquin River drains the southern half (San Joaquin Valley). The two rivers converge at the Sacramento–San Joaquin Delta, near the Mokelumne River, and flow into Suisun Bay. The project site is located 1.6 miles to the south of the American River, 8.6 miles to the northeast of Deer Creek, and 9.2 miles to the northeast of the Cosumnes River. The broad alluvial plains are dominated by annual grasslands and wetland habitats. Due to significant changes in site elevations during mining operations and subsequent fill operations, current ground surface elevations vary from 12 to 54 feet above msl.

Prehistory/Ethnography

The study area is located in an area historically occupied by the Penutian-speaking Plains Miwok, a subgroup of the Eastern Miwok. The Plains Miwok historically occupied the lower Mokelumne River, Cosumnes River, and the Sacramento River from Rio Vista to Freeport. Neighboring groups included the Nisenan to the north, Patwin and Bay Miwok to the west, Northern Valley Yokuts to the south, and the Washoe to the east.

Spanish mission records, diaries, and journals have provided the most comprehensive study of the Miwok, as well as some ethnographical studies done in the first half of the 20th century. Much of the history of the Plains Miwok, however, is incomplete.

The villages of the Plains Miwok were divided into “tribelets,” political units that were also structured by similarities in language and ethnicity. The tribelets averaged 300 to 500 persons, and each held claim to a designated portion of territory within the lands of the Plains Miwok, which also extended to the natural resources within each territory. Each tribelet’s territory

contained a main village and smaller satellite villages. Within a tribelet's main village was an assembly or dance house, either a large semi-subterranean structure or a simpler circular brush structure. Other structures included semi-subterranean or aboveground conical houses made with tule-matting, conical sweathouses, winter grinding houses, and acorn granaries. The Plains Miwok also practiced cremation.

The rich resources of the Sacramento-San Joaquin Delta and surrounding areas provided the Plains Miwok with food and material needs. The primary food staple was the acorn, supplemented by waterfowl, fish, shellfish, and large and small mammals. The Miwok are best described as seasonally mobile hunter-gatherers with semi-permanent villages. The Delta islands were also used regularly for hunting and fishing base camps. Permanent settlements of the Plains Miwok were located on high ridges or knolls near watercourses or on the sandy islands in the Delta.

The Plains Miwok collected plant greens and roots in the spring; seeds and nuts in the spring, summer, and early fall; and acorns in the late fall/early winter. Acorns, particularly from the prevalent valley oak (*Quercus lobata*), could be stored for some time in the conical-shaped granaries prior to processing. Tule elk, pronghorn antelope, and mule deer, as well as smaller mammals such as jackrabbits, cottontails, beaver, squirrels, and woodrats, were regularly hunted. Game birds included many types of waterfowl, mountain and valley quail, pigeons, jays, and woodpeckers. In addition to salmon, the Plains Miwok fished for sturgeon and lamprey.

A wide array of tools, implements, and enclosures were used by the Plains Miwok for hunting and gathering of natural resources. Among those used for hunting land mammals and birds were the bow and arrow, traps and snares, nets, and enclosures/blinds. Communal hunting drives were employed for both large and small mammals. Many plants were collected using wooden tools: long poles for dislodging acorns and pinecones, fire-hardened digging sticks for roots, and beaters for dislodging seeds. Once collected, seeds, roots, and nuts were placed in burden baskets and transported for processing or storage.

The Plains Miwok used a variety of tools to process food resources. These included portable stone mortars and pestles, bedrock mortars, anvils, woven strainers and winnowers, leaching and boiling baskets, woven drying trays, and knives. Unprocessed acorns were stored in the conical granaries.

Various foods were baked in earth ovens. Exotic items such as obsidian, steatite, and shell indicate they traded with coastal groups and mountain tribes.

The Native American residents of the Sacramento Valley came into contact with Europeans beginning in the late 1700s as a result of increased incursions into the area by the Spanish. Traditional lifeways were drastically altered during the early to mid-1800s as Spanish colonization and proselytization, Mexican land grants, and the subsequent American takeover and settlement progressively pushed indigenous people into the rugged California interior and reduced their numbers through relocation to the missions, the spread of infectious disease, and outright murder. Beginning in the early 1800s, most of the Plains Miwok converts were transported to Mission San José. Many resisted conversion and tried to return to their villages in the Delta. Plains Miwok people attacked Mexican coastal settlements and fought with neighboring Yokuts in the 1820s and 1830s. The secularization of the missions followed, spurred in part by these activities. During the Mexican-American War in the 1840s, the Miwoks sided with the United States.

The discovery of gold in 1848 and the ensuing Gold Rush, as well as the continuing influx of Euro-Americans into formerly remote regions of California, was the final cultural blow for many California Indians, including the Miwok bands near the current study area. With the loss of the majority of their traditional lands, as well as enslavement, slaughter, and disease, surviving Miwok labored for the growing lumber, ranching, farming, and mining industries.

During the first half of the 20th century, acquisitions of land by the federal government (from 2 acres to more than 300 acres) created a number of reservations, or rancherias, for the Plains Miwok, along with the Northern and Central Sierra Miwok. Between 1934 and 1972, the U.S. Bureau of Indian Affairs (BIA) then terminated relations with most of these rancherias, although since 1984, the status has been restored to the majority of the rancherias. Today, while there is no unified California Miwok tribal organization at a state or federal level, there are seven rancherias that have primarily or exclusively Eastern Miwok populations. These are the Buena Vista Rancheria (Plains Miwok/Amador County), the Chicken Ranch Rancheria (Central Sierra division of Eastern Miwok/Tuolumne County), the Lone Rancheria (Northern Sierra and Plains Miwok/Amador County), the Jackson Rancheria (Northern Sierra and Plains Miwok/Amador County), the Sheep Ranch Rancheria (Northern Sierra Miwok/Calaveras County), the Shingle Springs Rancheria (Plains Miwok/El Dorado County), and the Tuolumne Rancheria (Central Sierra Miwok/Tuolumne County). The Wilton Rancheria was established for the Nisenan and northern Miwok by the BIA, but was terminated by the federal government. Thus the Me-Wuk Indian Community of the Wilton Rancheria is no longer a federally recognized tribe.

Historical Period

A majority of the Aspen 1-New Brighton site was annexed by the City of Sacramento in 1963. However, the project includes annexation of a 29.5-acre parcel along South Watt Avenue that is within Sacramento County's jurisdiction. The northern border of the project site is Jackson Highway. Jackson (Highway) Road began as a stagecoach line from Sacramento to the goldfields during the Gold Rush era. In an 1866 Government Land Office (GLO) plat map, the road meanders to the southeast of the Rancho de Los Americanos land grant and is called the "new road to Jackson." The Jackson Road alignment has not significantly changed since 1911, as evidenced by the USGS 1911 Brighton 7.5-minute (scale 1:31,680) historic quadrangle map. The Rosemont neighborhood grew out of the post-World War II housing boom. Laid out beginning in the 1950s, the homes in the neighborhood date to the latter half of the 20th century.

The abandoned tracks of the Central California Traction Company Railroad (CCTC-RR) run approximately one km (0.62 mile) southwest of the project site. The railroad was incorporated in 1905 as one of several interurban railways operating in the Sacramento Valley in the early part of the 20th century. Originally an electric railway, parts of the railroad line remained operational as a diesel-powered freight line until June 1998. The main line ran between Sacramento and Stockton, with a branch line running to Lodi. Passenger service was discontinued in 1933, and the CCTC-RR's original electric equipment was replaced by diesel engines in 1947. Freight service through Sacramento ended in 1998, but the CCTC-RR is still in operation, servicing the Port of Stockton. The rail corridor is currently being considered as a possible route for a highspeed train between Sacramento and Stockton.

Existing Cultural Resources

California Historical Resources Information System

A records search to identify previous cultural resources studies in the project vicinity was conducted by the North Central Information Center of the California Historical Resources Information System on March 20, 2009. The results of the records search conducted by the North Central Information Center indicate that five cultural surveys have been conducted with the study area. None of the above surveys recorded cultural resources within the project area.

The *Cultural Resources Survey* prepared by SWCA Environmental Consultants, Inc. and revised by WAVE Consulting, Inc. indicates that evidence of prehistoric or historic archaeological deposits does not exist within the project area. In addition, on May 19, 2011, a survey was conducted to determine if the existing buildings on-site are considered to be of historical significance.

Native American Heritage Commission

SWCA contacted the Native American Heritage Commission (NAHC) on May 22, 2009, requesting a search of their Sacred Lands File for Native American cultural resources within the study area. The reply from the NAHC, dated June 5, 2009 (received June 9, 2009), states that a search of the Sacred Lands File did not indicate the presence of Native American sites in the immediate study area, and provided the names of five Native American contacts that may have knowledge of cultural resources within the study area.

Letters requesting information regarding the study area were sent on June 12, 2009, to the five Native American individuals or organizations identified by the NAHC. Follow-up telephone calls were placed on June 22, 2009 by SWCA. To date, the following replies have been received from the contact list to the letters or telephone calls: the Lone Band of Miwok Indians' Heritage Cultural Committee requested an email of the letter and map for the Committee's review; and Mr. Leland Daniels of the Wilton Rancheria stated that he previously performed monitoring of the project site and, to his knowledge, Native American cultural resources are not present in the study area.

5.3.2 REGULATORY BACKGROUND

Federal, State, and local governments have developed laws and regulations designed to protect significant cultural resources that could be affected by actions that they undertake or regulate. The National History Preservation Act of 1966 (NHPA) and California Environmental Quality Act (CEQA) are the principal federal and State laws governing preservation of historic and archaeological resources of national, regional, State, and local significance.

State

State historic preservation regulations affecting this project include the statutes and guidelines contained in the California Environmental Quality Act (CEQA; Public Resources Code sections 21083.2 and 21084.1 and sections 15064.5 and 15126.4 (b) of the CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. An "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript that is historically or archaeologically significant (Public

Resources Code section 5020.1). Section 15064.5 of the CEQA Guidelines references the California Register of Historic Resources criteria for evaluating the importance of cultural resources, including:

- 1) The resource is associated with events that have made a significant contribution to the broad patterns of California history;
- 2) The resource is associated with the lives of important persons from our past;
- 3) The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
- 4) The resource has yielded, or may be likely to yield, important information in prehistory or history.

Advice on procedures to identify such 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).⁴ 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 the antiquity and provides for the sensitive treatment and disposition of those remains.⁶

Senate Bill (SB) 18

Senate Bill 18, signed into law by Governor Schwarzenegger in September 2004, requires cities and counties to notify and consult with California Native American Tribes about proposed adoption of, or changes to, general plans and specific plans for the purpose of protecting Traditional Tribal Cultural Places ("cultural places"). Interim tribal consultation guidelines were published by OPR on March 1, 2005. The proposed project falls under the SB 18 requirements as defined by OPR; therefore, the City of Sacramento has contacted the Native American Heritage Commission and requested consultation.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

City of Sacramento General Plan

The following City of Sacramento General Plan goals and policies are applicable to cultural resources.

Historic and Cultural Resources

- | | |
|--------------|--|
| Goal HCR 2.1 | Identification and Preservation of Historic and Cultural Resources.
Identify and preserve the city's historic and cultural resources to enrich our sense of place and our understanding of the city's prehistory and history. |
|--------------|--|

- Policy 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.
- Policy 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.
- Policy HCR 2.1.3 Consultation. The City shall consult with the appropriate organizations and individuals (e.g., Information Centers of the California Historical Resources Information System (CHRIS), the Native American Heritage Commission (NAHC), and Native American groups and individuals) to minimize potential impacts to historic and cultural resources.
- Policy HCR 2.1.10 Early Consultation. The City shall minimize potential impacts to historic and cultural resources by consulting with property owners, land developers, and the building industry early in the development review process.
- Policy 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.

Historic Preservation Ordinance

The City of Sacramento's historic preservation program began in 1975 with the enactment of the City's first Historic Preservation Ordinance. The current Historic Preservation Ordinance (No. 2006-063) was enacted in October 2006. The purpose of the Historic Preservation Ordinance is to do the following: identify, protect, and encourage the preservation of significant resources; maintain an inventory and ensure the preservation of these resources; encourage maintenance and rehabilitation of the resources; encourage retention, preservation, and re-use of the resources; safeguard city resources; provide consistency with State and federal regulations; protect and enhance the city's attraction to tourists; foster civic pride in the city's resources; and encourage new development to be aesthetically compatible.

5.3.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

Cultural resources impacts may be considered significant if the proposed project would result in one or more of the following:

- Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section § 15064.5; or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Method of Analysis

The Cultural Resources Survey included the results of a literature review and field inspection. An archaeological literature review at the North Central Information Center (NCIC) at Sacramento State University was conducted to locate historic or prehistoric sites inside the proposed project boundaries or in the project area. Additionally, a letter requesting a list of the appropriate Native American contacts was sent to the Native American Heritage Commission on May 22, 2009. In a letter dated June 5, 2009, the Native American Heritage Commission provided the names and contact information for five tribes and tribal contact persons. Letters requesting comments were sent to the persons identified by the Native American Heritage Commission. As of October 2010, responses from two Native American tribes have been received.

The project area was inspected on foot by Philip Hanes of SWCA on May 22, 2009. A 4.5-acre portion of the study area was intensively surveyed with transects spaced no more than 10 meters apart. The remaining portions of the study area were reviewed by windshield survey because they were previously mined properties or contained within the rights of way of existing roadways. All unmined portions of the site and off-site infrastructure areas were examined for the following: artifacts; soil discoloration that might indicate of a cultural midden; soil depressions and features indicative of the former presence of structures or buildings; or historic debris.

The section below evaluates the impacts from the project on cultural resources that could occur within the project site, or in the areas of off-site infrastructure, by consulting available information in the Sacramento 2030 General Plan, the Sacramento General Plan Master EIR, and the *Cultural Resources Survey* prepared by SWCA Environmental Consultants, Inc. and revised by WAVE Consulting, Inc. Based on information in those reports, the standards of significance for cultural resources are identified and then the standards are applied to the existing conditions to determine the impacts. Lastly, mitigation measures are proposed, if necessary.

Project-Specific Impacts and Mitigation Measures

5.3-1 Impacts related to the substantial change in the significance of historical or archaeological resources or the direct or indirect destruction of an unique paleontological resource, site, or unique geologic feature.

Figure 6.4-1, Archaeological Sensitivity, of the Sacramento 2030 General Plan Master EIR, identifies primary impact areas related to cultural resources in the Sacramento General Plan area. The project area is not identified as a primary impact area for archaeological resources. In addition, the 2030 General Plan does not indicate that the project area is an archaeologically sensitive area, primarily due to the fact that the project site is not located in the northern Sacramento floodplain, nor is the site along any drainageways or other watercourses.

SWCA Environmental Consultants, Inc. did not identify any prehistoric, archaeological, or historic-era cultural resources. Additionally, a record search conducted by the North Central Information Center (NCIC) of the California Historical Resources Information System did not reveal any known prehistoric resources on the project site or in the immediate vicinity of the project site. In addition, a Sacred Lands File search did not indicate the presence of Native American sites in the immediate study area.

Two potential historic structures, remains of a garage and a well pump constructed during the 1950s or 1960s, were identified during the May 2011 survey. Both structures were documented using California Department of Parks and Recreation series 523 forms. The cultural resources report determined that the structures lack integrity and are unlikely to yield any information pertinent to the history of the area, and the structures are not eligible to be listed on the National Register of Historic Places. The sewer station located at 4480 South Watt Avenue was constructed in 1978 and is not considered a historical resource. The structures associated with the corporation yard in the northwest corner of the site and the metal shed within the former nursery area of the project site are not considered historic resources.

Approximately 98.5 percent of the 232-acre study area is composed of previously mined land. Existing study area uses include drying beds (60 percent), reclaimed agricultural land (38.6 percent), and high-voltage aerial transmission line at-grade pedestals (1.5 percent). It should be noted that residential and commercial uses are not proposed on the at-grade pedestals. A majority of the project site is filled with disturbed native soils and undocumented fill soils from previous mining activities. Prior to development of residential or commercial uses, re-excavation and thorough recompaction of the site would be required. As the site has previously been disturbed, a low potential exists for historic, archaeological, or paleontological resources to be discovered during re-excavation. However, according to the NCIC records search, the environmental setting and known land use patterns in the vicinity indicate a low to moderate possibility for subsurface prehistoric cultural resources and a moderate to high possibility for subsurface historic cultural resources exists on the project site. Therefore, the possibility exists that the excavation could disturb previously unknown historical, archaeological, or unique paleontological resources, resulting in a **potentially significant** impact.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less than significant* level.

- 5.3-1(a) *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 earth-moving activities, all work within 100 feet of the resource shall be halted, and the applicant shall consult with a qualified archeologist, representatives of the City and a 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.*
- 5.3-1(b) *If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.*
- If a Native American archeologist, ethnographic, or spiritual resources are discovered, 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.*
- 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 qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.*
- 5.3-1(c) *If a human bone or bone of unknown origin is found during earth-moving activities, all work shall stop within 100 feet of the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment 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.*

Cumulative Impacts and Mitigation Measures

5.3-2 Disturbance or destruction of previously unknown archaeological resources in combination with other development in the Sacramento area.

Buildout of approved and planned uses within the City has the potential to uncover previously unknown resource sites. Each site is a unique contributor to the overall scientific understanding of a region's pre-history. Evaluation of cultural finds and resources within their original context is a critical component of their value. Disturbance, movement, and destruction of such resources would remove or preclude the analysis of the resource within the original context and therefore adversely affect the understanding of the development of human cultural history. Increased population and intensified land use patterns associated with cumulative growth could also increase the potential for vandalism and/or inadvertent destruction of such resources. Consequently, the Sacramento 2030 General Plan EIR found that cumulative development would create a potentially significant impact to cultural resources that could be mitigated to a less than significant level with implementation of certain mitigation measures.

The field inspection by SWCA Environmental Consultants did not find evidence of prehistoric or archaeological deposits on the site. Furthermore, as discussed above, the extensive ground disturbance associated with mining of the site has not unearthed any archaeological resources. However, as noted above the potential for unknown archaeological resources exists on the project site. Therefore, without implementation of mitigation measures, the proposed project would have a **potentially significant** cumulative impact on cultural resources.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

5.3-2 *Implement Mitigation Measures 5.3-1(a), (b), and (c).*

Endnotes

¹City of Sacramento. *City of Sacramento General Plan Master EIR*. March 2009.

²City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

³SWCA Environmental Consultants, Inc. *Cultural Resources Survey for the Aspen I – New Brighton Project, City of Sacramento, California*. September 2, 2009. (Revised by WAVE Consulting, Inc. on May 19, 2011.)

⁴State of California, Governor's Office of Planning and Research. *CEQA and Archaeological Resources*. 1994.

⁵California Health and Safety Code Section 7050.5 and California Public Resources Code Sections 5097.94 *et seq.*

5.4 GEOLOGY, SOILS, AND MINERAL RESOURCES

5.4

GEOLOGY, SOILS, AND MINERAL RESOURCES

5.4.0 INTRODUCTION

The Geology, Soils, and Mineral Resources chapter of the EIR analyzes the impacts of the proposed Aspen 1-New Brighton project (proposed project) related to soils and geology. Information in this chapter is drawn from the *Sacramento 2030 General Plan Master EIR* (MEIR),¹ the *Sacramento 2030 General Plan*,² the *Preliminary Geotechnical Engineering Report* prepared by Wallace Kuhl and Associates, Inc. (See Appendix I),³ the *Preliminary Geotechnical Engineering Report Update* performed by Mid Pacific Engineering, Inc. (See Appendix J),⁴ and the Soil Survey of Sacramento County, California.⁵

5.4.1 EXISTING ENVIRONMENTAL SETTING

The following background setting information focuses on the existing topography of the project site, the underlying bedrock, and site seismicity, as well as the general conditions and expansiveness of the on-site soils.

Regional Geology

The City of Sacramento is located in the Great Valley geomorphic province of California. The Great Valley is generally considered less seismically active than other areas of California. The majority of significant, historic faulting (and groundshaking) in the vicinity of Sacramento has been generated along distant faults. Sacramento is surrounded by several faults in the San Andreas fault system to the west and the Eastern Sierra fault system to the east. A series of faults also run along the eastern base of the foothills west of the City.

The Alquist-Priolo Special Studies Zone Act of December 1972 (AP Zone Act) regulates development near active faults so as to mitigate the hazard of surface fault rupture. The AP Zone Act requires that the State Geologist (Chief of the California Department of Mines and Geology [CDMG]) delineates “special study zones” along known active faults in California. Cities and counties affected by these zones must regulate certain development projects with these zones. The AP Zone Act prohibits the development of structures for human occupancy across the traces of active faults. According to the AP Zone Act, “active faults” have experienced surface displacement during the last 11,000 years. “Potentially” active faults are those that show evidence of surface displacement during the last 1.6 million years. A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity sometimes is difficult to obtain and locally may not exist.

Known faults do not exist within the greater Sacramento region and Planning Area identified in the Sacramento 2030 General Plan Master Draft EIR. The Master EIR indicates that Sacramento is located within an area of relatively low severity, due to the lack of known major faults and low historical seismicity in the region. The maximum expected earthquake intensity is between VII and VIII on the Modified Mercalli Intensity Scale. Buildings in the City are at varying degrees of risk for damage during such earthquakes. The 2030 General Plan further states that

the earthquake resistance of any building is dependent upon an interaction of seismic frequency, intensity and duration with the structure's height, condition, and construction materials.

Regional Mineral Resources

Historic mineral production in the region has included construction aggregate, kaolin clay, common clay, pumice, and gold. Construction aggregate consists of sand, gravel, and crushed stone. Existing mineral extraction activities in and around Sacramento primarily consist of fine (sand) and coarse (gravel) construction aggregates, as well as clay. Additional mineral resources include gold. Construction aggregates come from two different sources, hardbed rock sources and river channel (alluvial) sources. Generally, sand, gravel, and clay are used as fill and for construction of highways and roads, streets, urban and suburban developments, canals, aqueducts, and pond linings.

Under the State Mining and Reclamation Act (SMARA), areas containing economically significant mineral deposits are classified and mapped. These Mineral Resource Zones (MRZs) are used in land use planning to show the likelihood of the occurrence of mineral resources in a particular area. Areas classified as MRZ-2 are considered to have the likelihood of significant mineral deposits that could be economically beneficial to society. Areas classified MRZ-2 have been mapped by the California Geology Survey (CGS) within the Policy Area, as shown in Figure 6.5-3 of the Sacramento General Plan Master EIR. The MRZ-2 area begins just east of Sacramento Executive Airport as a relatively narrow band extending northwest toward the American River. In the approximate vicinity of Power Inn Road, the MRZ-2 area broadens substantially towards Bradshaw and beyond. In general, the area classified MRZ-2 west of the Union Pacific Railroad is urbanized, so access to any deposits would be limited. Portions of the MRZ-2 area east of the railroad are less urbanized, and most of the former and current mining operations are located in that area. The remaining portions of the City are classified MRZ-1 or MRZ-3. These areas are not considered to contain significant mineral deposits.

Project Site Geology

A majority of the project site has been utilized for aggregate mining and currently includes drying beds, wash ponds, reclaimed agricultural land, and a conveyor belt.

Soil Conditions

The unmined portions of the site are predominately underlain by Riverbank Formation Lower member (Qrl). The Riverbank Formation, Lower member consists of semi-consolidated gravels, sands and silts deposited as alluvium.

According to the United States Department of Agriculture (USDA) Soil Conservation Service (SCS), Sacramento County Soil Survey, as well as the *Preliminary Geotechnical Engineering Report*, the project site is made up of the following soils:

- Pits (190);
- Urban land - Natomas complex, 0 to 2 percent slopes (228); and
- Xerarents - San Joaquin complex, 0 to 1 percent slopes (238).

The predominant soil complexes identified throughout the project site area are described below.

190 Pits

Pits typically consist of sand, gravel, and clay pits and rock quarries. Some areas are shallow pits on ridge tops. The shallow pits were exposed during early mining operations in which water carried by ditches was used to wash gravelly soil material downs slope. Most of areas of this unit (Pits) have been extensively excavated. Slopes are complex. Areas are highly disturbed and vary in natural drainage, permeability, erosion hazard, runoff, and available water capacity.

228 Urban land - Natomas complex, 0 to 2 percent slopes

Urban land consists of areas covered by impervious surfaces or structures, such as roads, driveways, sidewalks, buildings, and parking lots. The soil material under the impervious surfaces is similar to that of the Natomas soil, although it may have been truncated or otherwise altered. Natomas soils typically consist of a surface layer of brown loam that is approximately 17 inches thick. The upper part of the subsoil is yellowish-red and reddish-brown loam that is approximately 16 inches thick. The lower part is red clay loam that is approximately 45 inches thick. The substratum to a depth of 84 inches is yellowish-red sandy loam. In some areas the surface layer is sandy loam.

238 Xerarents - San Joaquin complex, 0 to 1 percent slopes

Xerarents consist of fill material derived from nearby soils of mixed but dominantly granitic origin. The texture, color, and thickness of the layers of these soils vary from one area to another. In a reference pedon, the surface layer is approximately 16 inches thick and consists of pale brown, yellowish-brown, light gray, white, and brown sandy loam and sandy clay loam fill that has remnant subsoil fragments of clay loam or clay. Below this is a buried surface layer of grayish-brown loam that is approximately five inches thick. The underlying material to a depth of 60 inches is brown loam and a light yellowish-brown, weakly cemented hardpan. The San Joaquin soils typically consist of yellowish-brown and brown fine sandy loam that is approximately 13 inches thick. The upper part of the subsoil is brown and strong brown sandy loam that is approximately 17 inches thick. The lower part is a claypan of yellowish-brown and brown clay that is approximately five inches thick. The upper part of the substratum is a brown, pinkish-gray, and yellowish-brown, indurated hardpan that is approximately 25 inches thick. The lower part to a depth of 67 inches is light yellowish-brown loamy coarse sand. In some areas the surface layer is sandy loam.

Off-Site Soil Conditions

Similar to the project site, the off-site un-mined infrastructure improvement areas are underlain by Qrl. Additionally, the northeastern portion of the off-site is underlain by Riverbank Formation, Upper member (Qru) and the southeastern portion is underlain by Laguna Formation (Tla).

According to the USDA SCS, Sacramento County Soil Survey, as well as the *Preliminary Geotechnical Engineering Report*, the off-site infrastructure area is made up of the following soils:

- Columbia sandy loam, drained, 0 to 2 percent slopes, occasionally flooded (118);
- Creviscreek sand loam, 0 to 3 percent slopes (132);

- Dierssen clay loam, drained, 0 to 2 percent slopes (135);
- Durixeralfs, 0 to 1 percent slopes (137);
- Hedge loam, 0 to 2 percent slopes (157);
- Kimball silt loam, 0 to 2 percent slopes (164);
- Natomas loam, 0 to 2 percent slopes (181);
- Pits (190);
- Red Bluff loam, 0 to 2 percent slopes (191);
- Red Bluff-Xerarents complex, 0 to 2 percent slopes (195);
- San Joaquin silt loam, leveled, 0 to 1 percent slopes (213);
- San Joaquin silt loam, 0 to 3 percent slopes (214);
- San Joaquin silt loam, 3 to 8 percent slopes (215);
- San Joaquin-Xerarents complex, leveled, 0 to 1 percent slopes (221); and
- Xerarents - San Joaquin complex, 0 to 1 percent slopes (238).

The predominant soil complexes identified throughout the project site area are described below:

118 Columbia sandy loam, drained, 0 to 2 percent slopes, occasionally flooded

Typically, the surface layer is light yellowish-brown sandy loam that is approximately 11 inches thick. The underlying material to a depth of 60 inches is stratified, yellowish-brown sandy loam, silt loam, and loam and pale brown sand. In some areas, the surface layer is loamy sand, loam, or silt loam, while in other areas, the surface layer is thicker and darker.

132 Creviscreek sand loam, 0 to 3 percent slopes

Typically, the surface layer is light yellowish-brown and reddish-yellow sandy loam that is approximately 21 inches thick. The subsoil is approximately eight inches of reddish-yellow sandy clay loam and brown gravelly sandy clay loam. The substratum is approximately 28 inches of stratified very pale brown, reddish-yellow, yellow, and light gray extremely gravelly sandy loam to very gravelly sandy clay loam. Weakly consolidated, clayey sediments are at a depth of approximately 57 inches. In some areas, the surface layer is gravelly sandy loam. In other areas the subsoil is very gravelly sandy clay loam.

135 Dierssen clay loam, drained, 0 to 2 percent slopes

Typically, the surface layer is brown clay loam that is approximately 15 inches thick. The upper part of the subsoil is grayish brown and brown clay that is approximately nine inches thick. The lower part is brown, calcareous clay that is approximately 17 inches thick. The substratum to a depth of 60 inches or more is a strong brown and pale brown, continuous hardpan that is strongly cemented with silica. In some areas the surface layer is sandy clay loam.

137 Durixeralfs, 0 to 1 percent slopes

The texture, color, and thickness of the layers of these soils vary from one area to another. In a reference pedon, the surface layer is brown clay that is approximately six inches thick. The subsoil is brown clay that is approximately 14 inches thick. The next 35 inches is a continuous hardpan that is strongly cemented with silica. Below this to a depth of 69 inches is an indurated hardpan. In some areas the surface layer is sandy clay loam or clay loam.

157 Hedge loam, 0 to 2 percent slopes

Typically, the surface layer is light yellowish-brown loam that is approximately 14 inches thick. The subsurface layer is very pale brown loam that is approximately nine inches thick. The soil has common black iron-cemented concretions. The upper part of the subsoil is light yellowish-brown clay loam that is approximately eight inches thick. The lower part is strong brown loam that is approximately seven inches thick. The next six inches is a light yellowish-brown and strong brown hardpan that is weakly cemented with silica. The substratum to a depth of 60 inches is light yellowish-brown sandy loam. In some areas the surface layer is sandy loam or fine sandy loam.

164 Kimball silt loam, 0 to 2 percent slopes

Typically, the surface layer is brown and light brown silt loam that is approximately 24 inches thick. The upper part of the subsoil is a claypan of brown and strong brown clay that is approximately 12 inches thick. The lower part to a depth of 60 inches is brown sandy clay loam and sandy loam. In some areas the surface layer is loam. In other areas it is lighter colored.

181 Natomas loam, 0 to 2 percent slopes

Typically, the surface layer is brown loam that is approximately 17 inches thick. The upper part of the subsoil is yellowish-red and reddish-brown loam that is approximately 16 inches thick. The lower part is red clay loam that is approximately 45 inches thick. The substratum to a depth of 84 inches is yellowish-red and strong brown sandy loam. In some areas the surface layer is sandy loam.

190 Pits

See above description.

191 Red Bluff loam, 0 to 2 percent slopes

Typically, the surface layer is brown loam that is approximately eight inches thick. The upper part of the subsoil is reddish-brown and yellowish-red clay loam that is approximately 17 inches thick. The lower part to a depth of 68 inches is yellowish-red and red clay and clay loam. In some areas the surface layer is sandy loam. In other areas the soil is gravelly throughout.

195 Red Bluff-Xerarents complex, 0 to 2 percent slopes

This unit is about 50 percent Red Bluff soil and 35 percent Xerarents. The Red Bluff soil is in the relatively undisturbed areas, and the Xerarents are in filled areas that have 20 or more inches of overburden. The Red Bluff soil is very deep, well drained, and formed in alluvium derived from mixed rock sources. Typically, the surface layer is brown loam that is approximately eight inches thick. The upper part of the subsoil is reddish-brown and yellowish-red clay loam that is approximately 17 inches thick. The next part is yellowish-red and red gravelly clay that is approximately eight inches thick. The lower part to a depth of 68 inches is yellowish-red, red, and light brown very gravelly clay loam. In some areas the surface layer is sandy loam. The Xerarents are very deep, well drained, and altered. They formed in fill material mixed by leveling activities. The fill material is derived from nearby soils of mixed origin. The texture, color, and thickness of the layers of these soils vary from one area to another. In a reference pedon, the

surface layer is fill that is approximately 30 inches thick. The fill material is brown loam mixed with fragments of gravelly clay, and very gravelly clay. The next eight inches is a buried surface layer of brown loam. The upper part of the buried subsoil is reddish-brown and yellowish-red clay loam that is approximately 17 inches thick. The lower part to a depth of 60 inches or more is yellowish-red and red gravelly clay and very gravelly clay.

213 San Joaquin silt loam, leveled, 0 to 1 percent slopes

Typically, the surface layer is strong brown silt loam that is approximately 23 inches thick. The subsoil is a claypan of yellowish-red clay loam that is approximately five inches thick. The next layer is an indurated hardpan that is approximately 26 inches thick. The substratum to a depth of 60 inches is light yellowish-brown loam. In some areas the surface layer is sandy loam, fine sandy loam, or loam.

214 San Joaquin silt loam, 0 to 3 percent slopes

Typically, the surface layer is strong brown silt loam that is approximately 23 inches thick. The subsoil is a claypan of yellowish-red clay loam that is approximately five inches thick. Below this is an indurated hardpan that is approximately 11 inches thick. The next 15 inches is a hardpan that is strongly cemented with silica. The substratum to a depth of 60 inches is yellowish-brown loam. In some areas the surface layer is sandy loam, fine sandy loam, or loam.

215 San Joaquin silt loam, 3 to 8 percent slopes

Typically, the surface layer is strong brown silt loam that is approximately 23 inches thick. The subsoil is a claypan of yellowish-red clay loam that is approximately five inches thick. The next layer is an indurated hardpan that is approximately 26 inches thick. The substratum to a depth of 60 inches is light yellowish-brown loam. In some areas the surface layer is sandy loam, loam, or fine sandy loam.

221 San Joaquin-Xerarents complex, leveled, 0 to 1 percent slopes

This unit is about 45 percent San Joaquin soil and 40 percent Xerarents. The San Joaquin soil is in areas that have been left relatively undisturbed when leveled. The Xerarents are in filled areas. The San Joaquin soil is moderately deep, moderately well drained, and formed in alluvium derived from granitic rocks. Typically, the surface layer is strong brown silt loam that is approximately 23 inches thick. The subsoil is a claypan of yellowish-red clay loam that is approximately five inches thick. The upper part of the substratum is an indurated hardpan that is approximately 26 inches thick. The lower part to a depth of 60 inches is light yellowish-brown loam. In some areas the surface layer is fine sandy loam, sandy loam, or loam. The Xerarents are moderately deep to very deep, well drained, and altered. They formed in fill material mixed by leveling activities. The fill material is derived from nearby soils of mixed but dominantly granitic origin. Prior to leveling, areas of these soils consisted of depressions and narrow channels along drainageways. The texture, color, and thickness of the layers of these soils vary from one area to another. In a reference pedon, the surface layer is approximately 16 inches of pale brown, yellowish-brown, light gray, white and brown sandy loam and sandy clay loam fill that has remnant subsoil fragments of clay loam or clay. The subsurface layer is approximately 14 inches of pale brown and brown loamy sand and sandy loam fill that has remnant subsoil fragments of clay loam or clay. Below this is a buried surface layer of grayish-brown loam that is

approximately five inches thick. The underlying material to a depth of 60 inches is brown loam and a light yellowish-brown, weakly cemented hardpan.

238 Xerarents- San Joaquin complex, 0 to 1 percent slopes

See above description.

Site Seismicity

A fault is defined as a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side. A fault zone is a zone of related faults that commonly are braided and subparallel, but may be branching or divergent. Movement within a fault causes an earthquake. When movement occurs along a fault, the energy generated is released as waves which cause groundshaking. Groundshaking intensity varies with the magnitude of the earthquake, the distance from the epicenter, and the type of rock or sediment the seismic waves move through.

The project site is not within an Alquist-Priolo Earth Quake Fault Zone. However, ground shaking has and will occur periodically in Sacramento as a result of distant earthquakes. The potential damage from seismic activity would be minimal due the project site location and the project proponent abiding by adopted City and State building standards.

Subsurface Conditions

Based on previous investigations performed on the project site, Wallace Kuhl and Associates, Inc. determined the soil conditions consist of a combination of native soils and undocumented fill soils. However, the depth of disturbed native soils and undocumented fill soils is not known.

Groundwater Conditions

Groundwater

Groundwater elevation data was obtained from a California Department of Water Resources monitored well located approximately one mile southeast of the project site. Based on available data, the lowest measured groundwater elevation at the well occurred on October 9, 1991, approximately 51.1 feet below the lowest existing grade at the project site; the highest elevation occurred at approximately 24.9 feet below the lowest existing grade at the site on March 26, 1969.

Off-Site Infrastructure Groundwater

Mid Pacific Engineering, Inc. reviewed available groundwater elevation data obtained from three DWR monitored wells located within the general vicinity off-site infrastructure area (See Table 5.4-1).

**Table 5.4-1
 Off-Site Groundwater Data**

Well Number	Ground Surface Elevation (ft, msl)	Recorded High GW Elevation (ft, msl)	Date	Recorded Low GW Elevation (feet, msl)	Date
08N06E30C	+50.0	-12.9	03-26-69	-39.1	10-09-91
08N06E21N	+65.0	3.4	03-19-63	-30.8	11-06-97
08N06E20R	+57.4	-21.3	04-13-99	-59.3	09-25-00

Source: Mid Pacific Engineering, Preliminary Geotechnical Report, October 2010.

Project Site Characteristics

The project site is located at the southwest corner of Jackson Highway and South Watt Avenue in the City of Sacramento. A small portion of the project site is located outside the city limits, within unincorporated Sacramento County. The 232-acre site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins plant. Mining on the project site was completed in the late 1960s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins plant, and an electrical transmission line that transects the site in a northwesterly direction. The conveyor belt system utilizes a series of tunnel crossings under Jackson Highway and South Watt Avenue, which are proposed to be incorporated into the drainage system for the project. Due to the former mining activities, topography on the site is varied, and vegetation is limited.

A visual site reconnaissance was conducted on March 10, 2009 by Wallace Kuhl and Associates, Inc. During the site reconnaissance, the following things were observed:

- A conveyor belt traversing the site in a northwest/southeast direction;
- Several large cobble piles, a water well, and a plastic water tank;
- North of the conveyor belt and south of Jackson Road, vacant land, stored equipment, a water supply well, asphaltic pavements, and a portable job trailer;
- An 18-acre portion of the site comprised of fill material placed on the site in the 1970s. The 18-acre portion is at the same elevation as Jackson Road and includes a water supply well and a water shed;
- Drying beds and wash ponds;
- Reclaimed agricultural land; and
- Steel tower-mounted, high voltage, electrical lines that cross the western portion of the site in a northeast/southwest direction.

Historical Topographic Maps

Historical topographic maps of the site taken from the United States Geological Survey 7.5-Minute Topographic Map of the Sacramento East Quadrangle and Carmichael Quadrangle were reviewed by Wallace Kuhl and Associates, Inc. The topographic maps show that the site elevation ranges from 45 feet msl to 50 feet msl. However, due to significant changes in site elevations during mining operations and subsequent fill operations, ground surface elevations vary from information provided by the topographic maps. Review of topographic contours from LiDAR data, provided by Sacramento County, indicates the ground surface elevation ranged in 2007 ranged from 12 feet msl to 50 feet msl.

Aerial Photograph Review

The following aerial photographs were reviewed for information regarding past conditions and land use at the subject site and in the immediate vicinity:

1961 Photograph

On the 1961 aerial photograph, the western, southern and eastern portions of the site appear to be undeveloped agricultural land. This photo shows early signs of mining operations throughout the central and northern portions of the site. Several structures in the northwest portion of the site and two structures in the southern portion of the site are visible in this photograph. Several trees were observed throughout the site.

1963 Photograph

In the 1963 aerial photograph, the site is similar to the 1961 photograph reviewed above. It appears three structures were constructed in the northeastern corner of the site sometime between 1961 and 1963.

1981 Photograph

In the 1981 photograph, the major portion of the site appears to have been mined and now supports "reclaimed agricultural land." Some of the structures previously observed in the northwestern portion of the site and all of the structures observed in the southern and northeastern portions of the site have been removed. The three large mounds supporting high voltage overhead electrical lines (northwest/southeast orientation) are visible in the western portion of the site. The following appear to have been constructed sometime between 1963 and 1981: the conveyor belt system (northwest/southeast orientation) and associated equipment located in the northwestern portion of the site, three wash ponds, additional structures and pavements located in the northwestern portion of the site, and the Aspen 1 - Matsuda Lease nursery, including associated structures, located in the northeastern portion of the site.

1986 Photograph

In the 1986 aerial photograph, the site is similar to the 1981 photograph reviewed above. It appears an additional pond was constructed in the northwestern portion of the site sometime between 1981 and 1986.

1991 Photograph

In the 1991 aerial photograph, the site is similar to the 1986 photograph reviewed above. It appears one of the wash ponds located in the northeastern portion of the site has dried out.

2004 Photograph

In the 2004 aerial photograph, the site is similar to the 1991 photograph reviewed above. It appears the pond that was dried out in the 1991 photograph contains water. Additionally, the central portion of the site, both north and south of the conveyor belt system has been converted into several drying beds. Several nursery structures associated with the Aspen 1 - Matsuda Lease site have been removed.

Mineral Resources

As shown in Figure 6.5-3 of the *Sacramento 2030 General Plan Draft MEIR*, the project site is within an MRZ-2 area. However, as shown on Figure 6.5-3, the project site is located in an area designated “mined-out of PCC-grade aggregate resources.”

5.4.2 REGULATORY BACKGROUND

The following is a description of federal, State, and local environmental laws and policies that are relevant to the California Environmental Quality Act (CEQA) review process.

Federal

Mine Safety and Health Act

The Mine Safety and Health Act (Act) of 1977 amended the federal Code Mine Health and Safety Act of 1969 by encompassing all mines under one legislation; regardless of size, commodity mined, or method of extraction. The Act requires mine operators to provide training for employees and mandated annual refresher training. The Mine Safety and Health Administration (MSHA) was created under the U.S. Department of Labor to administer the Act and enforce compliance with mandatory safety and health standards.

State

National Pollutant Discharge Elimination System (NPDES)

As required under the federal Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources, such as construction sites, that discharge pollutants into waters of the United States. In California, NPDES permit issues are overseen by the nine individual Regional Water Quality Control Boards. The City of Sacramento would be overseen by the Central Valley Regional Water Quality Control Board. For further discussion of NPDES, please refer to Chapter 5.7, Hydrology and Water Quality, of this Draft EIR.

California Building Standards Code / Uniform Building Code

The State of California provides minimum standards for building design through the California Building Standards Code (California Code of Regulations (CCR), Title 24). The California Uniform Building Code (CUBC) is based on the Federal Uniform Building Code (UBC) used widely throughout the U.S. and has been modified for California conditions with numerous more detailed and/or more stringent regulations.

California Surface Mining and Reclamation Act (SMARA)

The primary State law concerning conservation and development of mineral resources is the California Surface Mining and Reclamation Act (SMARA) of 1975, as amended. The SMARA is found in the California Public Resources Code (PRC), Division 2, Chapter 9, Section 2710, et. seq. The SMARA was enacted in 1975 to limit new development in areas with significant mineral deposits and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. In addition, the SMARA calls for the State Geologist to

classify the lands within California based on mineral resource availability. It should be noted that the proposed project site was mined prior to 1975 and, therefore, is not subject to SMARA.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The following *Sacramento 2030 General Plan* goals and policies are applicable to geology and soils.

Environmental Constraints – Seismic and Geologic Hazards

Goal EC 1.1 Protect lives and property from seismic and geologic hazards and adverse soil conditions

Policy EC 1.1.1 The City shall regularly review and enforce all seismic and geologic safety standards and require the use of best management practices (BMPs) in site design and building construction methods.

Policy EC 1.1.2 The City shall require geotechnical investigations to determine the potential for ground rupture, ground-shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards are potentially present.

Environmental Resources – Mineral Resources

Goal ER 5.1 Conserve existing and newly discovered aggregate deposits for environmentally and community-sensitive extraction and reclamation, while ensuring compatibility between extraction activity and surrounding uses.

Policy ER 5.1.1 The City shall protect lands designated MRZ-2, as mapped by the California Geological Survey, and continue to regulate activities consistent with the *Surface Mining and Reclamation Act*, mineral land classification information, and the *California Environmental Quality Act*.

Policy ER 5.1.2 The City shall require that current and future mineral extraction operations in designated MRZ-2 be compatible with and minimize impacts on adjoining uses.

Policy ER 5.1.3 The City shall continue to support ongoing environmentally sensitive mineral extraction activities within the city until these resources are depleted or extraction is no longer economically viable.

City of Sacramento Grading, Erosion, and Sediment Control Ordinance

The City Grading, Erosion, and Sediment Control Ordinance (Title 15, Chapter 15.88 of the City Code) sets forth rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities. With limited exceptions, grading approval must be received from the City Department of Utilities before construction. All project applicants, regardless of project location, are required to prepare and submit separate erosion and sediment control plans applicable to the construction and post-construction periods. The Ordinance also specifies other requirements, such as written approval from the City for grading work within the right-of-way of a public road or street, or within a public easement.

5.4.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

Impacts related to geology, soils, and mineral resources are considered significant if the proposed project would:

- Allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards;
- Result in the loss of availability of known mineral resources of State, regional, or local importance; or
- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Based on the analysis in the Initial Study for the project (See Appendix C), some potential impacts were determined to be less than significant, and thus were not analyzed in this EIR. Those impacts included the capability of the soils for supporting septic tanks (because a septic system is not proposed). Impacts related to mineral resources in the area were also determined to be less than significant.

Method of Analysis

The analysis for the proposed project is based on the the City of Sacramento 2030 General Plan, the City of Sacramento 2030 General Plan Master EIR, and the Soil Survey of Sacramento County, California.

Project-Specific Impacts and Mitigation Measures

5.4-1 Impacts related to development in areas that could be affected by geologic hazards associated with unstable soils conditions including expansive soils and subsidence, potentially exposing people to risk from these hazards.

Project Site

The project site has been utilized for aggregate mining and related mining uses. The Preliminary Geotechnical Engineering Report determined the project site consists of a combination of disturbed native soils and undocumented fill related to previous mining

activities. The project applicant would be required to overexcavate and thoroughly compact the site to support development of residential and commercial uses. In addition, the project includes the importation of approximately 1.3 million cubic yards of soil, which would be stockpiled on-site and used throughout the phases of development of the proposed project. The Preliminary Geotechnical Report recommends the construction of continuous and isolated spread foundations extending 12 inches to 18 inches below grade, bearing capacities of 1,500 to 2,000 pounds per square foot, and use of No. 4 reinforcing bars near the top and bottom of foundations after removal and thorough recompaction of the site. However, the depth and consistency of the disturbed native soils and undocumented fill is not known.

Off-Site Infrastructure

A Preliminary Geotechnical Report Update was prepared for the off-site infrastructure area. The geotechnical report determined the off-site infrastructure site consists of disturbed native soils and undocumented fill soils. Construction of the proposed infrastructure would require excavation and would expose and removal a majority of the loose soils, structures, and existing vegetation. However, the depth of the disturbed native soils, undocumented fill soils, and required overexcavation is not known.

Conclusion

The depth of disturbed and undocumented fill soils is unknown for the project site and off-site infrastructure area. The project applicant would be required to submit a design-level geotechnical analysis, including site-specific analysis of the depth of the disturbed native soils and undocumented fill. Therefore, without a design level geotechnical analysis, a ***potentially significant*** impact would occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

5.4-1(a) *Prior to issuance of grading permit, the applicant shall submit a design-level geotechnical analysis, for review and approval of the City Engineer. The geotechnical analysis report shall include, but not limited to, soil test boring or test bits with soil sampling, laboratory testing, and additional engineering evaluation to determine the depth and consistency of the native soils and undocumented fill. In addition, the geotechnical analysis report shall include, but not limited to, conclusions and specific recommendations regarding the following:*

- *Site preparation;*
- *Soil expansion potential;*
- *Foundation alternatives;*
- *Liquefaction;*
- *Slope Stability;*
- *Floor support;*
- *Site drainage*
- *Pavement design; and*

- *Quality and ability of the soil to support plant and tree life.*

5.4-1(b) *At least 72 hours prior to the placement of imported fill, the applicant shall have the potential fill inspected by a qualified geotechnical consultant to ensure that all fill being used for fills less than five feet below design grade have a plasticity index of less than or equal to 12, and that all soils are clean and free of deleterious materials, organic materials, and shall not contain particles greater than six inches in size. The results of the geotechnical analysis shall be submitted to the City Engineer prior to placement of fill.*

5.4-1(c) *Prior to placement of imported fill, the applicant shall have the excavation surface inspected by a qualified geotechnical consultant to ensure the stability of the excavation bottom. Should the site be found to be unstable or contain loose or deleterious materials, the applicant shall perform required mitigation as identified by the geotechnical consultants and approved by the City Engineer. Mitigation for unstable fill could include, but is not limited to the following:*

- *Restrict fill activities to occur when the excavation bottom is dry and stable during warm weather; or*
- *Require that the placement of geotextile fabric be placed prior to granular import fill. The geotextile fabric would be required to be Mirafi 600X or equivalent. Granular fill would consist of well-graded crushed materials, such as Class 2 aggregate base of Caltrans Standard Specifications, but may also consist of other granular imported materials. Uniform crushed rock may be used as a stabilizing layer provided that the crushed rock is completely wrapped in the geotextile fabric.*

5.4-2 Impacts related to development in areas that could be affected by seismic hazards, such as ground rupture, groundshaking, and liquefaction, potentially exposing people to risk from these hazards.

As previously noted, due to the seismic activity in the State, construction is required to comply with Title 24 of the Uniform Building Code (UBC). The UBC contain standards to ensure that structures and infrastructure are constructed to minimize the impacts from seismic activity, to the extent feasible, including exposure of people or structures to substantial, adverse effects as a result of strong groundshaking, seismic-related ground failure, liquefaction, lateral spreading, landslides, or lurch cracking. Minor damage may occur, including the cracking of walls, and masonry veneers; and the severing of water, natural gas, and wastewater pipes. As a result, seismic activity in the area of the proposed development would not expose people or structures to substantial, adverse effects as a result of strong ground shaking and seismic-related ground failure. This impact is considered ***less than significant***, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.4-3 Impacts related to substantial erosion or unstable slope or soil conditions through alteration of topographic features, dewatering, or changes in drainage pattern.

As stated above, the proposed project includes overexcavation and recompaction of the project site. During the removal process, soils would be stockpiled and would be loose soil without existing vegetation or development to discourage the loss of soil through erosion; therefore, the construction-related impacts associated with the potential for soil erosion and the loss of topsoil on the project site would be significant.

Under the City Grading, Erosion, and Sediment Control Ordinance (Title 15, Chapter 15.88 of the City Code), the proposed project must adhere to rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities to minimize substantial erosion. The proposed project must prepare and submit an erosion and sediment control plan applicable to the construction and post-construction period for the City Department of Utilities approval. After construction, the drainage pattern would allow water activities to be directed into storm drainages. As a result, the operational uses of the project site would not result in alteration of topographic features, dewatering, or changes in drainage patterns, substantial erosion, and unstable slope or soil conditions would not occur.

A majority of the project site is below grade level of surrounding properties and the existing slopes throughout the site are 1:1 or steeper. Development of the proposed project, including overexcavation, recompaction, and construction of residential and commercial uses would occur in phases. The Preliminary Geotechnical Engineering Report determined that the minimum required reconstructed slopes must be at least two horizontal to one vertical (2:1), or shallower.

Off-Site Infrastructure

The off-site infrastructure improvements include excavation and development of basins and drainage channels. The geotechnical report determined that with proper compaction of native soils the proposed reconstructed slopes ranging from 3:1 to 4:1 would not result in instabilities.

Conclusion

The project includes overexcavation, recompaction, and importation of fill. The reconstructed slopes within the project site would be 2:1 or shallower and 3:1 or shallower within the off-site infrastructure area. In addition, the project would be required to comply with the City's, Grading Erosion, and Sediment Control Ordinance. However, without design level geotechnical report based upon test borings and test pits with soil sampling to ensure slope stability, a **potentially significant** impact would occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

5.4-3 *Implement Mitigation Measure 5.4-1(a).*

5.4.4 Impacts related to loss of structural support due to potential liquefaction or lateral spreading.

Liquefaction is a phenomenon whereby loose, saturated, granular soil deposits lose a significant portion of their shear strength due to excess pore water pressure buildup resulting from cyclic loading, such as that caused by an earthquake. Among other effects, liquefaction can result in densification of such deposits (and hence settlements of overlying deposits) after an earthquake as excess pore water pressures are dissipated. The primary factors affecting liquefaction potential of a soil deposit include the following: (1) level and duration of seismic ground motions; (2) soil type and consistency; and (3) depth to groundwater. Soils most susceptible to liquefaction are saturated, loose, and/or sandy soils.

As discussed in Impact 5.4-1, the project includes excavation and recompaction of the project site and importation of approximately 1.3 million cubic yards of soil. In addition, Mitigation Measures 5.4-1(b) and (c) ensure that the imported fill is not susceptible to liquefaction. Furthermore, according to the Preliminary Geotechnical Reports prepared for the project site, based on historic groundwater, the depth to groundwater is sufficient such that the soils would not be saturated and thus would not fail due to liquefaction. As a result, the impact from the loss of structural support due to potential liquefaction is considered to be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.4-5 Damage to foundations, pavements, and other structures from expansive soils.

The Preliminary Geotechnical Engineering Report determined the project site and off-site infrastructure site consist of disturbed native soils and undocumented fill soils. Disturbed native soils and undocumented fill soils are considered capable of high expansion pressures on building foundations, interior floor slabs and exterior flatwork if subject to variations in soil moisture content. As stated above, in addition to overexcavation and recompaction of the disturbed native soils and undocumented fill soils, approximately 1.3 million cubic yards of soil would be imported. Adverse impacts to buildings and roadways could occur if the imported fill dirt does not meet engineering standards required in Mitigation Measures 5.4-1(a), (b), and (c), which ensure that the imported fill soils are of the plasticity or consistency required for stability, and the excavation bottom is cleared properly. Therefore, with regard to expansive soils, a **less than significant** impact would result, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.4-6 Loss of availability of a known State, regional, and/or locally valuable mineral resource.

As stated above, the Sacramento 2030 General Plan Master EIR designates the site within a MRZ-2 area, but within as “mined-out of PCC-grade aggregate resources.”

Historically the project site has been previously mined for aggregate and currently includes aggregate-related processing ponds. In addition, the applicant would mine additional aggregate resources identified during removal and compaction of the project site. Therefore, a majority of the aggregate resources has been removed from the project site and implementation of the proposed project would result in a **less than significant** impact to known State, regional, or locally valuable resources as identified in the City of Sacramento General Plan EIR. Consequently, the project would not create impacts related to valuable mineral resources outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

The continuing buildout of developments in the City of Sacramento and surrounding areas would be expected to increase the need for surface grading and excavation, and, therefore, increase the potential for impacts related to soil erosion, unforeseen hazards, and exposure of people and property to earthquakes.

5.4-7 The proposed project would contribute to the continuing buildout of Sacramento and surrounding areas, and would combine with existing and future developments to increase the potential for related geological impacts and hazards.

The proposed project would increase the number of people and structures that could be exposed to potential effects related to seismic hazards. Development of the proposed project would also increase the number of structures that could be subject to the effects of expansive soils. Site preparation would also result in temporary and permanent topographic changes that could affect erosion rates or patterns. However, potentially adverse environmental effects associated with seismic hazards, as well as those associated with geologic or soils constraints, topographic alteration, and erosion, are usually site-specific and generally would not combine with similar effects that could occur with other projects in Sacramento. Furthermore, all projects would be required to comply with the UBC, the City of Sacramento's ESC, and other applicable regulations. Consequently, the proposed project would generally not be affected by, nor would it affect, other development approved by the City of Sacramento. Therefore, the impact would be considered **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
None required.

5.4-8 Long-term impacts to the mineral resources of the region from the proposed project in combination with existing and future developments in the Sacramento area.

Development of the proposed project was found to have a less-than-significant impact related to potential mineral resources on-site. The proposed project is not expected to significantly contribute to a cumulative loss of mineral resources in the Sacramento region. Due to the existing designation of "mined-out of PCC-grade aggregate

resources,” the loss of potential mineral resources would not be considered cumulatively considerable. According to the General Plan MEIR, development under the proposed General Plan, in combination with all other development in the county, could limit the availability of a known mineral resource potentially resulting in a significant cumulative impact. However, because proposed General Plan policies do not prohibit existing mineral production and encourage that existing operations be protected and buffered from incompatible surrounding land uses, contributions to adverse impacts on mineral resources as a result of the proposed General Plan would not be cumulatively considerable. The project would not create long-term impacts to mineral resources outside of those anticipated within the General Plan MEIR and the incremental contribution of the proposed project to cumulative mineral resource impacts would not be cumulatively considerable. Therefore, the project’s impact would be considered ***less than significant***.

Mitigation Measure(s)

None required.

Endnotes

¹ City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

² City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

³ Wallace Kuhl and Associates, Inc. *Preliminary Geotechnical Engineering Report*. September 2, 2009.

⁴ Mid Pacific Engineering, Inc. *Preliminary Geotechnical Engineering Report Update*. November 8, 2010.

⁵ United States Department of Agriculture, Soil Conservation Service. *Soil Survey of Sacramento County, California*. April 1993.

5.5 HAZARDS AND HAZARDOUS MATERIALS

5.5

HAZARDS AND HAZARDOUS MATERIALS

5.5.0 INTRODUCTION

The Hazards and Hazardous Materials chapter of the EIR describes existing and potentially occurring hazards and hazardous materials within the Aspen 1-New Brighton project (proposed project) area. Potential impacts posed by these hazards to the environment, as well as to workers, visitors, and residents within and adjacent to the project areas are discussed in the chapter. More specifically, the chapter describes hazards to the public or the environment from exposure to hazardous materials, such as soil contamination stemming from past uses of the site, and interferences with emergency response plans. The Hazards chapter is based on information drawn from the *Environmental Data Evaluation Report* prepared by Nichols Consulting Engineers, Chtd. (See Appendix K),¹ the *Sacramento 2030 General Plan*,² and the *Sacramento 2030 General Plan Master EIR (MEIR)*.³

5.5.1 EXISTING ENVIRONMENTAL SETTING

The proposed project site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins plant. Mining on the project site was completed in the late 1960s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins plant, and an electrical transmission line that transects the site in a northwesterly direction. The conveyor belt system utilizes a series of tunnel crossings under Jackson Highway and South Watt Avenue. Due to the former mining activities, topography on the site is varied, and vegetation is limited. Existing trees are also limited, with the exception of some remnant Heritage Trees. In addition, ancillary mining and storage structures are located in the northwestern portion of the site, one approximately 20-year-old storage shed on the former nursery site, and a mechanical belt housing on the eastern border of the site.

The project site northern boundary is defined by State Route 16 (SR16). Existing uses across SR 16 include previously mined (aggregate) vacant land, an active aggregate mining operation (Teichert Perkins plant) to the north, and a large residential development to the northeast. The project site eastern boundary is defined by South Watt Avenue. Existing uses across South Watt Avenue includes previously mined (aggregate) vacant land. Immediately south of the project is the L and D Landfill (Class III Solid Waste Facility). Situated to the west, from north to south, respectively, are the former Florin-Perkins Landfill (F+P Landfill, a Class III Solid Waste Facility), which is now operating as a material recovery/large volume transfer station, and an industrial park. Due to changes during mining and subsequent backfill operations, the topography at the project site varies from information obtained from previously published maps.

Site History

Historically, prior to 1952, the project site was utilized for cultivation of row crops. As early as 1961, the project site was utilized as an aggregate mine. Subsequently, during mining operations the project site was filled to the current grade. The northeast corner of the site was

used as a plant nursery (i.e., Matsuda Nursery) from 1981 until 2007. In 1992, a 4,000-gallon diesel underground storage tank (UST) was removed from the Matsuda property under oversight by the Sacramento County Environmental Management Department (SCEMD). In 1993, the SCEMD issued a “No further action letter” for the UST, based on the laboratory analytical results of soil samples collected during UST removal. In addition, one approximately 20-year-old storage shed exists on-site.

A field survey of the Matsuda portion of the site was surveyed in 2002. The field survey includes collection and evaluation of six boring samples across the Matsuda site, a 20-foot-deep boring analyzed at five-foot intervals at the former location of the UST, and a groundwater sample from the agricultural water supply well. The laboratory analyses for the borings and samples did not detect hazard concentrations above acceptable levels.

Potential Environmental Concerns

Agricultural Chemicals and Heavy Metals

The Matsuda Nursery portion of the project site included an agricultural chemical storage building. The southwest portion of the site is actively farmed and the potential for residue agricultural chemicals exists. In addition, on-site ponds and silt drying beds have received aggregate wash and drainage from the Matsuda portion and other off-site properties. Heavy metals could have accumulated from the uses of agricultural chemicals and mining related activities. Specifically, background levels of Arsenic in the vicinity are known to exceed the EPA screening threshold are known to occur in area.

Landfill Gases and Trichlorofluoromethane

The project site is adjacent to the former F+P Landfill and the active L and D Landfill. Low levels of trichlorofluoromethane (TCFM) are present beneath the F+P Landfill and project site. Historically, volatile organic compounds (VOCs) have been detected in groundwater and landfill gas (LFG) in the southern portion of the L and D Landfill.

Asbestos Containing Material (ACM) and Naturally Occurring Asbestos (NOA)

The existing on-site building located on the Matsuda portion of the project site was inspected on January 27, 2011. The building is made out of steel and aluminum and does not contain asbestos containing materials. The closest area to the project site that is classified by the Department of Conservation for containing NOA is approximately 15 miles east. Therefore, NOA is unlikely to be present within the vicinity of the project site.

Oil and Gas Wells

According to the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) Online Mapping System, oil, gas, and geothermal wells have not been identified within a one-mile radius of the project site.

Electric and Magnetic Fields (EMF)

Electric and magnetic fields are invisible lines of force associated with the production, transmission, and use of electric power such as those associated with power lines, electric

appliances, and the wiring in buildings of homes, schools, and work structures. The sources of potential EMF at the project site are overhead electric distribution lines located on easements along the northern and eastern boundaries and in the southern portion of the site, and two overhead electric transmission lines located on a transmission line corridor that transects the southwest portion of the site. The distribution lines operate at voltages ranging from 12,000 to 69,000 kilovolts (kV) and the transmission lines operate at voltages ranging from 115 to 230 kV.

According to SMUD, the maximum magnetic fields under power distribution lines in California range from approximately 1 to 80 milligauss, and the maximum magnetic fields from the edge of the right-of-way of power transmission lines range from approximately 1 to 300 milligauss. As a comparison, the magnetic fields of a microwave oven and a television at 1.2-inches away range from 750 to 2,000 and 25 to 500 milligauss, respectively.

5.5.2 REGULATORY BACKGROUND

The term “hazardous substance” refers to both hazardous materials and hazardous wastes. If a material appears on a list of hazardous materials prepared by a federal, State, or local regulatory agency, or if a material’s characteristics are defined as hazardous by such an agency, that material is defined as hazardous. The following discussion contains a summary review of regulatory controls pertaining to hazardous substances, including federal, State, and local laws and ordinances.

Federal Regulations

Federal agencies that regulate hazardous materials include the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). The following federal laws and guidelines govern hazardous materials:

- Federal Water Pollution Control Act;
- Clean Air Act;
- Occupational Safety and Health Act;
- Federal Insecticide, Fungicide, and Rodenticide Act;
- Comprehensive Environmental Response, Compensation, and Liability Act;
- Guidelines for Carcinogens and Biohazards;
- Superfund Amendments and Reauthorization Act Title III;
- Resource Conservation and Recovery Act;
- Safe Drinking Water Act; and
- Toxic Substances Control Act.

Prior to August 1992, the principal agency at the federal level regulating the generation, transport and disposal of hazardous waste was the EPA under the authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992 however, the Department of Toxic Substances Control (DTSC) was authorized to implement the State’s hazardous waste management program for the EPA. The federal EPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

State Regulations

The California Environmental Protection Agency (Cal-EPA) and the State Water Resources Control Board establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable State laws include the following:

- Public Safety/Fire Regulations/Building Codes;
- Hazardous Waste Control Law;
- Hazardous Substances Information and Training Act;
- Air Toxics Hot Spots and Emissions Inventory Law;
- Underground Storage of Hazardous Substances Act; and
- Porter-Cologne Water Quality Control Act.

Within Cal-EPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL).

Existing Adopted Local Regulations

Sacramento 2030 General Plan

The following goals and policies from the Sacramento 2030 General Plan are applicable to hazards:

Public Health and Safety Element

Goal PHS 3.1 Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

Policy 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.

Policy 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.

- Policy PHS 3.1.4 Transportation Routes. The City shall restrict transport of hazardous materials within Sacramento to designated routes.
- Policy PHS 3.1.6 Compatibility with Facilities. The City shall ensure that future development of treatment, storage, or disposal facilities is consistent with the County's Hazardous Waste Management Plan, and that land uses near these facilities, or proposed sites for the storage or use of hazardous materials, are compatible with their operation.

5.5.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, a significant impact would occur if the proposed project would:

- 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
- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

Method of Analysis

The following analysis of the potential for impacts resulting from hazards associated with the implementation of the proposed project is based on review of the proposed project site design and intended uses and information presented in existing documentation to establish existing conditions and to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the proposed project would comply with all applicable laws, ordinances, and regulations (summarized above).

Environmental Data Evaluation Report

Site conditions and impact assessments for this chapter are based on the *Environmental Data Evaluation Report* prepared for the project site by Nichols Consulting Engineering Chtd., in February 2011.

A total of 12 shallow borings were installed and soil samples were collected from the borings for laboratory analysis to characterize soil conditions at the Matsuda and Urban Farm portions of the site. In addition, three sediment samples were collected from within the existing ponds for laboratory analysis to characterize the sediments within the ponds.

The laboratory analysis did not detect or detected concentrations below regulatory screening levels for antimony, barium, cadmium, chromium, cobalt, lead, mercury, nickel, selenium, silver, thallium, vanadium, and zinc. In addition, detected herbicide and pesticide concentration level were below the regulatory screening levels.

Arsenic

The laboratory analysis detected arsenic concentrations that exceed the California, EPA Region 9, and CRWQCB screening levels. Arsenic was detected at all of the sample locations at concentrations ranging from 1.0 milligrams per kilogram (mg/kg) to 7.5 mg/kg.

Project-Specific Impacts and Mitigation Measures

5.5-1 Implementation of the proposed project could result in the exposure of people to hazards and hazardous materials during construction activities.

Agricultural Chemicals and Heavy Metals

The project includes overexcavation, importation of fill, and compaction of the site. With the exception of arsenic, concentrations of heavy metals and agricultural chemicals were less than the residential and industrial screening levels. The EPA's California Human Health Screening Levels guidance document acknowledges that arsenic is a naturally occurring metal and that naturally occurring concentrations commonly exceed the screening levels. In addition, reported concentrations of arsenic that represent background conditions do not require any additional regulatory consideration. Background concentrations of arsenic in two soils samples from nearby properties were similar to concentrations identified on the project site. Therefore, although arsenic concentrations levels exceed the regulatory screening levels for unrestricted/residential land uses, the levels are consistent with background concentrations of arsenic in California soils and nearby properties, and further regulatory consideration is not required.

Landfill Gases and Trichlorofluoromethane

Florin Perkins Landfill

The former F+P Landfill operated February 1994 to February 2005. Prior to January 2005, the F+P Landfill was permitted to accept only non-hazardous solid waste and inert waste. Groundwater samples were collected semi-annually since 2002. Elevated concentrations of two Volatile Organic Compounds (VOCs), methylene chloride and trichlorofluoromethane (TCFM), were detected in groundwater below F+P.

However, based on monitoring data, the TCFM is localized at the F+P Landfill with the exception of detections at well MW-2 located immediately east of the F+P Landfill. The highest TCFM concentrations at MW-2 detected range from 0.57 to 2.7 micro g/L. The region screening level for TCFM in tap water is 1,300 micro g/L.

TCFM is an organic compound that is only slightly soluble in water and is denser than water. Inhalation of TCFM vapors originating from groundwater could occur. To assess the potential for TCFM vapors to impact indoor air quality at the project site, a screen level for TCFM was modeled using an EPA computer spreadsheet based on Johnson and Ettinger model to evaluate vapor intrusion pathway into buildings. The model determined the suggested screening level for TCFM vapor intrusion is 692.5 micro g/L. Therefore, the highest concentration of 2.7 micro g/L is well below the suggested screening level and a *less than significant* impact related to TCFM would occur.

L and D Landfill

The L and D Landfill is divided into three major waste management units, East Pit, West Pit, and LF-2. The East and West Pit is jointly known as LF-1 and are located in the southern portion of L and D Landfill. The LF-1 is the original unlined portion of the landfill. LF-2 is lined and is designed to capture part or all of the generated leachate.

Two aquifer zones are monitored at the L and D Landfill. The uppermost aquifer is encountered under confined conditions between approximately 30 to 60 feet below mean sea level (msl) and is comprised of sand and fine gravel. Historically, the groundwater flow direction in the uppermost aquifer is towards the south from the northeast corner of L and D Landfill to the extraction well system along the southern boundary of the landfill.

Several VOCs have been detected within the upper aquifer as early as 1987. In July 2000, a groundwater remediation system consisting of an air stripping unit and extraction wells, was installed to remove the dissolved VOCs from the groundwater.

Between July and December 2009, SCS Engineers conducted a monthly monitoring of LFG migration to assess whether LFG migration is occurring along the boundary of the L and D Landfill. The latest monitoring results indicate extraction wells located along the perimeter of LF-1 were all operating and methane concentrations were less than two percent. In addition, extraction wells located throughout LF-1 are operating and extract LFG. The leachate collection and removal system riser in LF-2 extracts a moderate quantity of LFG and contained an average methane concentration of 20 percent. In addition, flare outs are utilized as part of the methane collection system. Based on the monthly monitoring, LFG is generated and is adjacent to the project site. However, the LFG extraction systems and methane collection systems remove a significant quantity of LFG, thereby preventing LFG migration.

The existing LFG extraction system is composed of the gas extraction wells, associated piping, and enclosed ground flare. The system will be inspected and maintained until and throughout the 30-year post-closure period, or as long as gas continues to be detected at levels requiring control. The LFG management system will be inspected with a focus on well head assemblies, pipeline couplings, connections, pipeline leaks (which may be indicated by a gas odor, hissing sounds, elevated gas concentrations in surface air samples or elevated oxygen readings in the collection system), pipeline breakage, cracking, abnormalities, or deformations. Regular inspections of the blower/flare station will also be performed to ensure adequate and safe operation. The LFG collection system maintenance procedures will include provisions for minimizing the probability of elevated subsurface temperatures. These elevated subsurface temperatures are caused by LFG combustion, which may result from excessive oxygen intake. The abundance of oxygen usually occurs from the application of excess vacuum to a portion of the LFG collection system. The elevated subsurface temperatures can jeopardize the integrity of the LFG collection system, create unpredictable LFG generation rates, and cause rapid and/or uneven refuse settlement. In addition, monitoring data will be reviewed for suction losses, which may indicate collection system leaks, and for combustion efficiency. Based on the results of the inspections, repairs and/or replacement of components of the active LFG extraction system can be made as necessary.

The most recent groundwater monitoring reports did not detect VOCs in L and D Landfill monitoring wells adjacent to the project site. In addition, the project site is hydraulically upgradient of the landfill. Therefore, construction activities on the project site would not expose people to hazardous amounts of LFG, resulting in a *less than significant* impact.

Conclusion

The data from ground water monitoring and extraction wells indicate that VOCs are not present in the L and D Landfill and LFG are being extracted to prevent migrations to the project site. In addition VOCs within the F+P Landfill are localized and below screening levels. Therefore, the impact related to exposure of people to hazards and hazardous material during construction would be *less than significant*, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.5-2 Implementation of the proposed project could result in the exposure of people to hazards and hazardous materials during operation of the project.

The proposed project includes the development of residential, commercial, and urban farm uses. Operation of residential, commercial, and urban farm uses could include the uses and transportation of small amounts of hazardous material. Although the accidental release of hazardous materials is unlikely, the Sacramento General Plan Policy PHS 3.1.4 restricts the transportation of hazardous material within Sacramento to designated routes. The project would be required to comply with all regulations and hazardous waste management plans and the Sacramento 2030 General Plan polices, which would ensure the exposure of people to hazardous materials would not occur.

In addition, high voltage power lines traverse a portion of the site from the southern boundary to the western boundary. Three high voltage power line towers are located within the project site. The project includes 100-foot setbacks from the towers, within which the residential, commercial, and urban farm uses would not be allowed to be developed. In addition, residences are not proposed under the power lines. As noted above, the maximum magnetic fields from distribution power lines in California range from approximately one to 80 milligauss, and the maximum magnetic fields from the edge of the right-of-way of power transmission lines range from approximately one to 300 milligauss. As a comparison, the magnetic fields of a microwave oven and a television at a distance of 1.2 inches range from 750 to 2,000 and 25 to 500 milligauss, respectively. Therefore, operation of the project would not exceed household levels of EMF and would have a *less than significant* impact related to exposure of people to hazards and hazardous materials. Consequently, the project would not create impacts related to the exposure of people to hazards and hazardous materials outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

5.5-3 Long-term hazards-related impacts from the proposed project in combination with existing and future developments in the Sacramento area.

Impacts associated with hazardous materials are site-specific and generally do not affect nor are affected by cumulative development. Furthermore, regulations established by federal, State, and local agencies serve to regulate the use, storage, and disposal of hazardous materials. However, the possibility exists that transportation of hazardous wastes to and from the site could combine with the transportation of other hazardous materials to create a cumulative hazard.

Transport of hazardous materials to the project site and away from the project site would typically occur on State Route 16. Transportation of hazardous materials is regulated by the California Highway Patrol, California Department of Transportation, United States Postal Service, and the Environmental Protection Agency. Compliance with the Hazardous Materials and Waste Management Plan would ensure that all wastes are properly packaged when entering or leaving the hospital, and would be transported by permitted carriers subject to the appropriate regulation. As a result, the hazards posed by the routine transportation of hazardous medical wastes would not pose a potential cumulative impact.

The use, storage, transportation, and disposal of hazardous materials associated with the proposed project would not result in a significant incremental contribution to a cumulative hazard. Therefore, implementation of the proposed project would have a **less than significant** impact associated with cumulative hazardous materials use, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Endnotes

¹ Nichols Consulting Engineers, Chtd. *Environmental Data Evaluation Report: Aspen 1 Property*. February 2, 2011.

² City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

³ City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

5.6 HYDROLOGY, WATER QUALITY, AND DRAINAGE

5.6 HYDROLOGY, WATER QUALITY, AND DRAINAGE

5.6.0 INTRODUCTION

The Hydrology, Water Quality, and Drainage chapter of the EIR describes existing drainage and water resources for the Aspen 1-New Brighton project (proposed project), and evaluates the potential impacts of the proposed project with respect to flooding, surface water resources, and groundwater resources. Information for the Hydrology, Water Quality, and Drainage chapter was drawn from the *Sacramento 2030 General Plan*,¹ the *Sacramento 2030 General Plan Master EIR* (MEIR),² and the *Drainage Report (Aspen 1)* that was prepared for the project by Wood Rogers (See Appendix L).³

5.6.1 EXISTING ENVIRONMENTAL SETTING

The section below describes the existing hydrological features of the surrounding region and the project site, including flooding and drainage, as well as water quality of the existing resources in and around the project site.

Regional Setting

The City of Sacramento is located within the Sacramento River Basin at the confluence of two major rivers: the Sacramento and the American. The Sacramento River Basin is composed of approximately 26,500 square miles, and is bound by the Sierra Nevada Mountain Range to the east, the Coast Range to the west, the Cascade Range and Trinity Mountains to the north, and the Sacramento-San Joaquin Delta (Delta)/Central Sierra Nevada area to the south. The American River watershed encompasses approximately 1,900 square miles and is a tributary to the Sacramento River. The American River watershed is situated on the western slope of the Sierra Nevada, extending from the spine of the Sierra Nevada westward to the City of Sacramento. The Sacramento River flows south from Shasta Lake in Northern California, and the American River flows west from the Sierra Nevada Mountains. The American River meets the Sacramento River at the western boundary of the City. Forty miles south of the City, the Sacramento River is joined by the San Joaquin River. The combined rivers flow into the Delta and San Francisco Bay.

The Sierra Nevada snowfields are 70 miles east of Sacramento and typically provide a plentiful supply of water to the valley streams during the dry season. From east to west, as the watershed elevation decreases, vegetation is principally characterized by coniferous forests, oak-studded grasslands, and finally grasslands. Ninety-five percent of the annual precipitation occurs between November and April as both rain and snow. Although the mountains and reservoir system serve to arrest the full brunt of winter storms, runoff from mountain snowmelt and rainstorms occasionally flood the Sacramento River and associated tributaries.

The Sacramento climate is arid with an average annual rainfall of 17.22 inches; with most of the rain occurring during the months of November through March. Major storm events can produce high flows throughout the Sacramento and American River systems. Flood control facilities

along these rivers consist of a comprehensive system of dams, levees, overflow weirs (diversion structures intended to ensure that flows in the river do not exceed an identified maximum level), drainage pumping plants, and flood control bypass channels. The flood control network seeks to control water flows by regulating the amount of water passing through a particular reach of the river. Urban runoff flows are directed into this system by the City via two systems: (1) conveyance to the Sacramento River and American River through sumps, pipelines, and treatment facilities; or (2) conveyance by the City's Combined Sewer Service System (CSS), along with sewage to the Sacramento Regional Wastewater Treatment Plant (SRWTP) located near Elk Grove.

Regional Flooding

In the City of Sacramento's past, floods have been the most frequent and considerable natural hazard affecting the local environment and economy. Three different types of flood events occur in the Sacramento area – flash, riverine, and urban stormwater. All of the flood types typically result from severe weather and heavy rainfall, either in the City or in areas upstream of the City (i.e., the Sacramento River watershed in the northern portion of the Valley).

The term “flash flood” describes localized floods of high volume and short duration, generally less than four hours. This type of flood usually results from a heavy rainfall on a relatively small drainage area. Precipitation of this sort usually occurs in the spring and summer. Dam failures also often result in flash flooding.

Riverine flooding occurs when a watercourse exceeds “bank-full” capacity and is the most common type of flood event. Riverine flooding occurs as a result of prolonged rainfall that is combined with saturated soils from previous rain events, or combined with snowmelt, and is characterized by high peak flows of moderate duration and by a large volume of runoff. Riverine flooding occurs in river systems whose tributaries drain large geographic areas and can include many watersheds and sub-watersheds. The duration of riverine floods varies from a few hours to many days. Factors that directly affect the amount of flood runoff include precipitation amount, intensity and distribution of rainfall, soil moisture content, channel capacity, seasonal variation in vegetation, snow depth, and water-resistance of the surface due to urbanization. In Sacramento County, riverine flooding can occur anytime from November through April. Flooding is more severe when previous rainfall events result in saturated ground conditions.

Urbanization may increase peak flow runoff, as well as the total volume of stormwater runoff from a site. The increase is dependent upon the existing soil and topographic conditions as compared to the proposed land uses. The Natural Resources Conservation Service, a division of the U.S. Department of Agriculture, has surveyed the soil types in Sacramento County, and much of the County is characterized by soils with low permeability and high runoff rates.

In general, the area adjacent to a stream, river, or other water channel is called the floodplain. The floodplain is the area that is inundated during a flood event and is often physically discernible as a broad, flat area created by historical floods. Floodplains are illustrated on inundation maps produced by the Federal Emergency Management Agency (FEMA), which show areas of potential flooding and water depths. The floodplain is most often referred to as the area that is inundated by a 100-year flood event. A 100-year flood event has a one percent chance of being equaled or exceeded in any given year. An area within a designated 100-year floodplain may have substantially less protection and be susceptible to flooding on a regular basis; however, the 100-year flood protection is a requirement for most construction. The 100-

year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program (NFIP).

Major storm events can produce high water flows throughout the Sacramento and American River systems. The watersheds of these two main rivers drain most of northern California and part of southern Oregon, for a total of some 26,000 square miles. An extensive system of dams, levees, overflow weirs, drainage pumping plants, and flood control bypass channels strategically located on the two rivers has been established to protect the area from flooding. However, the strength of the levee system near Sacramento has recently been called into question.

Regional Drainage

As outlined above, the City of Sacramento is at the confluence of the Sacramento River and the American River in the Sacramento River Basin. Six small tributaries of the Sacramento River pass through and provide drainage for the City of Sacramento. These tributaries include Dry Creek, Magpie Creek, and Arcade Creek in the northern portion of the City, and Morrison Creek, Elder Creek, and Laguna Creek in the southern portion of the City.

The volume of water flowing through the Sacramento levee system is primarily controlled by Folsom Dam on the American River, approximately 20 miles east of the project site, and the reserve overflow area of the Yolo Bypass on the Sacramento River. The majority of the City, including the project area, could be subject to flooding from failure of the levee systems along the Sacramento and American rivers. Folsom Dam was completed in 1956 and was designed to reduce flood flows in the American River to a flow rate that could be safely carried by the downstream levees.

Folsom Dam was designed to provide flood control for Sacramento up to a 500-year storm (a storm with a 0.2 percent chance of occurring in any given year). However, after the dam became operational, a series of record storms and flood flows resulted in a re-evaluation of the dam's design flood capacity. In 1986, Folsom Dam's performance was downgraded to an approximately 60-year storm (1.67 percent chance of occurring in any given year). An initial reconnaissance report, "American River Investigation," January 1988, concluded that Folsom Dam and the American River levees were only capable of handling a 70-year flood event (Sacramento County, 1993).⁴ Nevertheless, during the February 1986 event, the levees contained a volume of water generated by an 80 to 100 year storm event with only localized flooding.

In the wake of the 1986 storm, efforts were undertaken to reduce the Sacramento area's vulnerability to catastrophic flooding. In 1989, the Sacramento Area Flood Control Agency (SAFCA), a joint powers agency established by the City of Sacramento, Sacramento County, Sutter County, the American River Flood Control District, and Reclamation District 1000 (RD-1000), was formed with the goal of ensuring that at least 100-year flood protection was achieved for the area. Ultimately, the goal of SAFCA is to reach 200-year flood protection, pursuant to the provisions of Senate Bill 5 (2007).

In 1994, SAFCA and the U.S. Bureau of Reclamation agreed to adjust and coordinate operations at Folsom Dam so that upstream reservoirs could assist in flood control measures. Congress approved funding for American River levee improvements in 1996 and also approved additional funding for flood control projects, including the enlargement of the outlets on Folsom Dam, in 1996. Congress authorized funding to raise the height of Folsom Dam in the Energy

and Water Development Appropriations Act of 2004. Due to the rapidly rising cost of construction, the project design, now called the Folsom Dam Joint Federal Project, has been revised to raise the height of the dam and include a spillway for flows greater than the dam outlets can currently handle. Construction on the revised spillway design began in December 2007 and is expected to be completed in 2015.

The Yolo Bypass is part of the Sacramento River Flood Control Project (SRFCP). The SRFCP includes six weirs, three flood control relief structures, and an emergency overflow roadway. Weirs located along the Sacramento River are lowered and armored sections of levees allow flood waters in excess of the downstream channel capacity to flow into a bypass channel or basin. The Yolo Bypass is a flood bypass area that primarily protects the City of Sacramento and surrounding communities from flooding along the Sacramento River. The Yolo Bypass conveys 80 percent of the Sacramento River's floodwaters through Yolo and Solano Counties until rejoining the Sacramento River near Rio Vista.

City Drainage Basins

The City is divided into 120 drainage basins. Drainage from most of these basins flows to local rivers or creeks or drainage channels through pumping. The City owns and operates 105 storm drainage pumping stations throughout the City. The drainage canals and local creeks eventually drain into the Sacramento and American Rivers.

Proposed Project Site

The proposed project site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins plant. Mining on the project site was completed in the late 1990s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves from other aggregate mining sites to the Teichert Perkins plant, and an electrical transmission line that transects the site in a northwesterly direction. Due to the former mining activities, topography on the site varies from elevation 52 in the north to elevation 16 in the central portion of the site. Vegetation is limited to some scattered small trees and dry grasses. The proposed project site is historically located within the Morrison Creek watershed. Due to mining activity on-site, the project site has not discharged stormwater to Morrison Creek since the early 1970s.

Floodplains

The Federal Emergency Management Agency (FEMA) prepared preliminary Flood Insurance Rate Maps (FIRMs) for the project site in January 2011 as part of FEMA's digital FIRM update (See Appendix M of this Draft EIR). These maps identify the site as Zone X, which indicates that the site is protected by levees.

By letter dated May 2, 2102 to the Sacramento County Department of Water Resources, FEMA indicated that a Letter of Map Revision (LOMR), Case Number 12-09-1836P, has been initiated to incorporate Special Flood Hazard Areas (SFHAs) along Jackson Road in the area of former mining pits.⁵

Newly constructed channel sections along the Morrison Creek levee have not yet been certified. FEMA indicated that it must assume worst case conditions, which would be a break in the levee at these uncertified sections. Under such conditions, based on a review of Sacramento County

topographic data and aerial photography, and the location of open conveyor tunnels, FEMA determined that the areas depicted below in Figure 5.6-1 could be inundated during the 100-year flood due to the lower elevation. As shown in Figure 5.6-1, the proposed project site would be located within the 100-year floodplain and designated as Zone A, which is considered a SFHA.

The LOMR Case Number 12-09-1836P will become effective sometime after the August 16, 2012 FIRM for Sacramento County, subject to appeal and modification. The potential boundaries for the LOMR are preliminary and subject to change. Depth of flooding is unknown and the Base Flood Elevation (BFE) has not been established.

Soils

The project site is situated on soil characterized mostly as Hydrologic Soil Group "D" soils and a small area of Group "C" soils at the southeastern portion of the site. Group "C" soils have a slow rate of water transmission. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. Group "D" soils have a very slow rate of water transmission. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material.

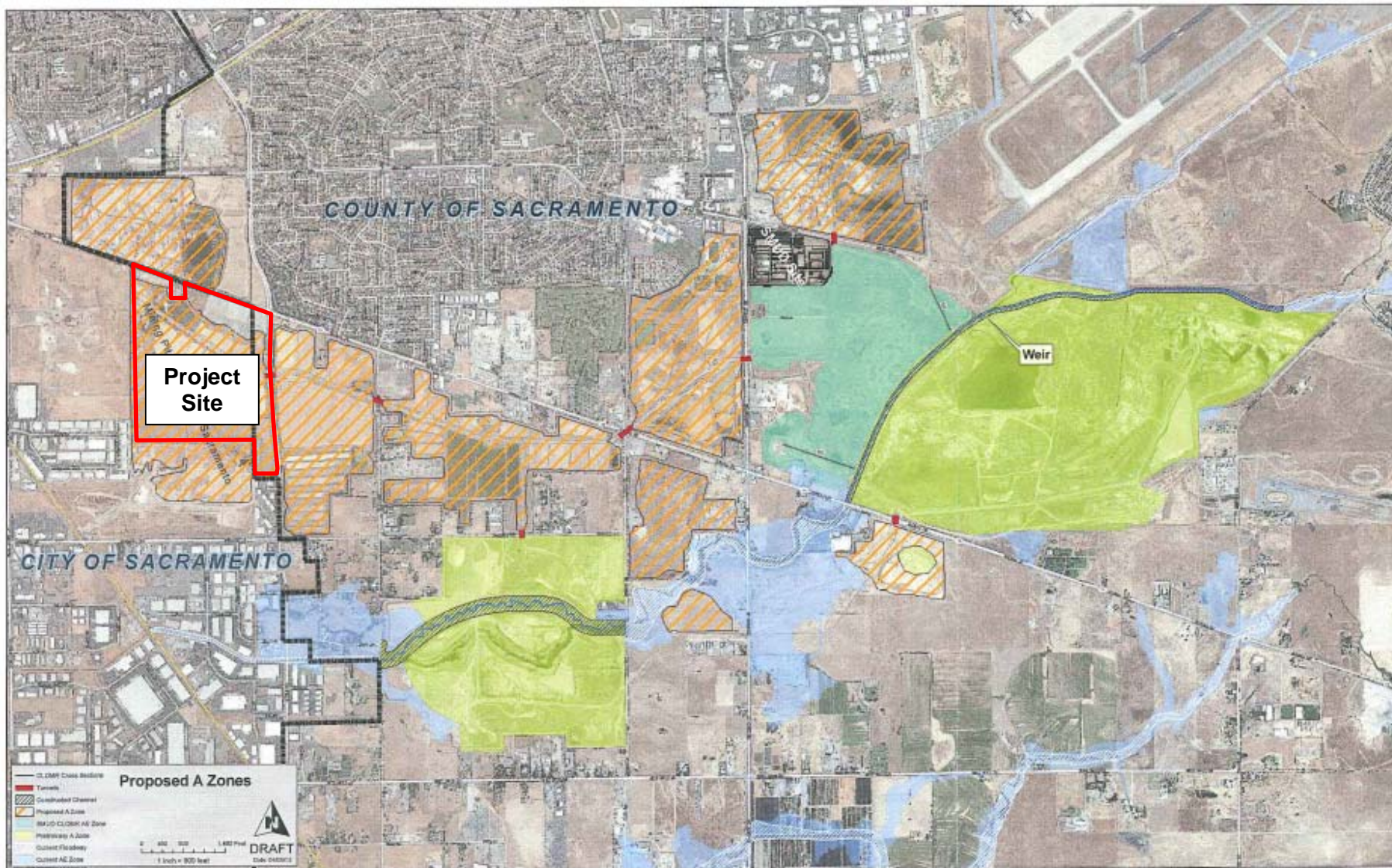
Water Quality

The Sacramento General Plan states that the water quality of the American River is considered to be very good. In addition, the Sacramento River water is considered to be of good quality, although higher sediment loads and extensive irrigated agriculture upstream of Sacramento tends to degrade the water quality. During the spring and fall, irrigation tailwaters are discharged into drainage canals that flow to the Sacramento River. In the winter, runoff flows over these same agricultural areas. In both instances, flows are highly turbid and introduce large amounts of herbicides and pesticides into the drainage canals, particularly rice field herbicides in May and June. The turbidity (i.e., clarity) of the river is changed from relatively clear to turbid from sediment laden discharges.

The Central Valley Regional Water Quality Control Board (CVRWQCB) has primary responsibility for protecting the quality of surface and groundwater within the City. The CVRWQCB's efforts are generally focused on preventing either the introduction of new pollutants or an increase in the discharge of existing pollutants into bodies of water that fall under the CVRWQCB's jurisdiction. The CVRWQCB is concerned with all potential sources of contamination that may reach both these subsurface water supplies and rivers through direct surface runoff or infiltration. Runoff from new development would be treated before discharging into receiving waters. Similarly, any stormwater runoff that is collected in City drainage facilities is treated using a number of treatment measures, including the use of detention basins, before being sent to the Sacramento River. The CVRWQCB implements water quality standards and objectives in keeping with the State of California Standards.

The City of Sacramento has received a municipal National Pollutant Discharge Elimination System (NPDES) permit from the CVRWQCB. Under this permit, the permittees are required to develop, administer, implement, and enforce a comprehensive Stormwater Quality Improvement Plan (SQIP) in order to reduce pollutants in urban runoff to the Maximum Extent Practicable (MEP).

Figure 5.6-1
FEMA Proposed A Zones



The SQIP emphasizes all aspects of pollution control, including, but not limited to, public awareness and participation, source control, regulatory restrictions, water quality monitoring, and treatment control.

5.6.2 REGULATORY BACKGROUND

The following is a description of federal, State, and local environmental laws and policies that are relevant to the review of hydrology and water quality under the California Environmental Quality Act (CEQA) process.

Federal Regulations

Federal Emergency Management Agency

FEMA is responsible for determining flood elevations and floodplain boundaries based on studies provided by federal, State, and local agencies. FEMA is also responsible for distributing FIRMs, which are used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-year floodplains.

FEMA allows non-residential development in the floodplain; however, construction activities are restricted within the flood hazard areas, depending upon the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations (CFR). These standards are implemented at the State level through construction codes and local ordinances; however, these regulations only apply to residential and non-residential structure improvements. Although roadway construction or modification is not explicitly addressed in the FEMA regulations, the California Department of Transportation (Caltrans) has also adopted criteria and standards for roadway drainage systems and projects situated within designated floodplains. Standards that apply to floodplain issues are based on federal regulations (Title 23, Part 650 of the CFR). At the state level, roadway design must comply with drainage standards included in Chapters 800-890 of the Caltrans Highway Design Manual. CFR Section 60.3(c)(10) restricts cumulative development from increasing the water surface elevation of the base flood by more than one foot within the floodplain.

Federal Clean Water Act

The NPDES permit system was established in the federal Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the U.S. Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

Nonpoint sources are diffuse and originate over a wide area rather than from a definable point. Nonpoint pollution often enters receiving water in the form of surface runoff, but is not conveyed by way of pipelines or discrete conveyances. As defined in the federal regulations, such nonpoint sources are generally exempt from federal NPDES permit program requirements.

However, two types of nonpoint source discharges are controlled by the NPDES program: nonpoint source discharge caused by general construction activities, and the general quality of stormwater in municipal stormwater systems. The 1987 amendments to the CWA directed the

federal EPA to implement the stormwater program in two phases. Phase I addressed discharges from large (population 250,000 or above) and medium (population 100,000 to 250,000) municipalities and certain industrial activities. Phase II addresses all other discharges defined by EPA that are not included in Phase I.

National Toxics Rule (NTR)

In 1992, the EPA promulgated the NTR under the CWA to establish numeric criteria for priority toxic pollutants. The NTR established water-quality standards for 42 pollutants for which Section 304(a) water-quality criteria exist, but that were not covered under California's statewide water quality regulations. As a result of the court-ordered revocation of California's statewide water-quality control plans in September 1994, the EPA initiated efforts to promulgate additional federal water-quality standards for California. In May 2000, the EPA issued the California Toxics Rule (CTR), which addresses all the priority pollutants for which the EPA has issued Section 304(a) numeric criteria that were not included in the NTR. Section 304(a) numeric criteria are those CWA criteria, established by EPA on a pollutant-by-pollutant basis, required to safeguard the chemical, physical, and biological integrity of a water body.

Section 408

Section 408 regulates the use of or alteration to levees or other improvements along rivers, unless otherwise permitted by the USACE through state or local agencies.

National Pollutant Discharge Elimination System (NPDES)

The CVRWQCB has primary responsibility for protecting the surface and groundwater quality within the project area. The CVRWQCB's efforts are generally focused on preventing either the introduction of new pollutants or an increase in the discharge of existing pollutants into bodies of water that fall under its jurisdiction. The proximity of the Sacramento River to the project area and the existence of both a shallow water table and deep aquifer beneath the area keep the CVRWQCB interested in activities in the project area.

The City has obtained a Municipal Separate Storm Sewer System (MS4) NPDES permit from the CVRWQCB under the requirements of the EPA and Section 402 of the CWA. The goal of this permit is to reduce pollutants found in urban stormwater runoff. The EPA requires construction projects exceeding one acre to obtain a NPDES Stormwater Permit before commencing construction. California has adopted a Construction General Permit (CGP) that must be obtained by any construction project that disturbs one or more acres of land. Therefore, construction is not allowed to begin until the state CGP is obtained by the developer.

An MS4 permit requires the permittee to employ Best Management Practices (BMPs) before, during, and after construction by implementing a stormwater management program to reduce stormwater pollutants to the maximum extent practicable. In compliance with this permit and as approved by the CVRWQCB, the City has developed and is implementing a SQIP.⁶ The SQIP includes several elements, such as a construction element and a new development element, which are intended to provide guidelines for effectively reducing stormwater pollution. Controlling urban runoff pollution during and after construction is critical to the success of the Sacramento SQIP. The construction element provides the permitting, inspection, and enforcement required to comply with the program. The New Development Element is intended to protect local creeks and rivers by reducing the discharge of stormwater pollutants that could

result from new developments to the maximum extent practicable and by mitigating increased flows that could cause erosion and degrade habitat.

State Regulations

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) are responsible for ensuring implementation and compliance with the provisions of the federal CWA and California's Porter-Cologne Water Quality Control Act. As discussed above in the water quality discussion, the project site is situated within the jurisdiction of the Central Valley Region of the RWQCB (Region 5). The CVRWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within the CVRWQCB's jurisdiction.

Water quality objectives for the Sacramento River and the associated tributaries (e.g., Cache Creek, Willow Slough, and Yolo Bypass) are specified in the Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin (Basin Plan) prepared by the CVRWQCB in compliance with the federal CWA and the Porter-Cologne Act. The Basin Plan establishes water quality objectives, and implementation programs to meet stated objectives and to protect the beneficial uses of water in the Sacramento-San Joaquin River Basin. Because the City of Sacramento is located within the CVRWQCB's jurisdiction, all discharges to surface water or groundwater are subject to the Basin Plan requirements.

Porter-Cologne Water Quality Control Act (Porter-Cologne Act)

The Porter-Cologne Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State must adopt water-quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. The act sets forth the obligations of the RWQCBs pertaining to the adoption of Basin Plans and establishment of water-quality objectives. The Act also authorizes the SWRCB and the RWQCBs to issue and enforce permits containing waste-discharge requirements for projects that may discharge wastes to land or water.

The regional Basin Plans, required by both the CWA and the Porter-Cologne Act, establish beneficial uses, water-quality objectives, and implementation programs for each of the nine RWQCBs. Each RWQCB is required to implement the provisions of several statewide plans and policies related to water quality. Several of these are relevant to the proposed project and are discussed below.

According to the California Department of Water Resources (DWR), basic information for many of the State's groundwater basins is lacking. To this end, the California Legislature mandated in the Budget Act of 1999 that the Department of Water Resources prepare:

[...] the statewide update of the inventory of groundwater basins contained in Bulletin 118-80, which includes, but is not limited to, the following: the review and summary of boundaries and hydrographic features, hydrogeologic units, yield data, water budgets, well production characteristics, and water quality and active monitoring data; development of a water budget for each groundwater basin; development of a format and procedures for publication of water budgets on the Internet; development of the model

groundwater management ordinance; and development of guidelines for evaluating local groundwater management plans.

Groundwater use in the Sacramento Valley Groundwater Basin is largely unregulated, although some local agencies in the Sacramento Valley have chosen to write groundwater management plans based on AB 3030, the Groundwater Management Act of 1992 (*California Water Code Sections 10750-10756*). The Groundwater Management Act provides a systematic procedure for an existing local agency to develop a groundwater management plan.

Basin Plan for the Sacramento-San Joaquin River Basins

The Basin Plan for the Sacramento-San Joaquin River basins, adopted by the CVRWQCB in 1998, identifies beneficial uses of water bodies and provides water quality objectives and standards for waters in the region. State and federal laws mandate the protection of designated *beneficial uses* of water bodies. State law defines beneficial uses as “domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves” (Water Code Section 13050[f]). The Basin Plan contains specific numeric and narrative water-quality objectives applicable to ambient surface and groundwater resources and for a number of physical parameters, chemical inorganic and organic constituents, biological factors, and toxic priority trace metal and organic compounds. Water quality objectives for toxic pollutants in the Basin Plan complement the federal water quality standards adopted in the CTR in May 2000.

Central Valley Flood Protection Board (CVFPB)

The Central Valley Flood Protection Board (CVFPB) has jurisdiction and exercises authority over any projects which could affect the Sacramento River levee. Section 8710 of the California Water Code (Regulations) requires that a CVFPB permit must be obtained prior to the start of any work—including excavation and construction activities—within floodways, levees, and 10 feet landward of the landside levee toes. Section 8(b)(2) of the Regulations states that applications for permits submitted to the Board must include a completed environmental questionnaire that accompanies the application and a copy of any environmental documents, if they are prepared for the project.

California General Construction Activity Stormwater Permit

The U.S. Environmental Protection Agency (U.S. EPA) and the SWRCB regulate point sources of pollution, such as construction sites, that have the potential to discharge pollutants into the waters of the United States. This is accomplished through the issuance of NPDES stormwater discharge permits. NPDES Phase II regulations took effect in March 2003, requiring that applicants proposing construction activities involving disturbance of from one to five acres, and associated stormwater discharge, must obtain a NPDES permit from the State. Construction activities larger than five acres were already regulated, under NPDES Phase I (1990). (Phase II also required that small [population < 100,000] municipal separate storm sewer system [MS4] operators obtain a NPDES permit.) Landowners are responsible for applying for coverage under the permit and complying with permit requirements, but may delegate specific duties to developers and contractors by mutual consent.

Permit applicants are required to prepare, and retain at the construction site, a Storm Water Pollution Prevention Plan (SWPPP), which describes the site, erosion and sediment controls,

means of waste disposal, implementation of local plans, control of post-construction sediment and erosion control measures and maintenance responsibilities, and non-stormwater management control. Dischargers are also required to inspect construction sites before and after storms to identify stormwater discharge from construction activity, and to identify and implement controls where necessary.

As of July 1, 2010, the new Statewide General Construction permit requires that projects provide on-site mitigation such that 100 percent of volume impacts, from impervious surfaces, for the 85th percentile storm events and more frequent events are eliminated. The project would be required through the NPDES General Construction permit to implement extensive Low Impact Development (LID) measures to provide hydromodification benefits and meet the new general construction permit standards. LID is a sustainable practice that benefits water supply and contributes to water quality protection. The goal of LID is to mimic a Site's pre-development hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall.

Construction Dewatering Activities

Construction dewatering activities that discharge to surface waters require NPDES authorization (NPDES CAG995001) under the CVRWQCB general order for dewatering and other low threat discharges to surface waters (Order No. 5-00-175). The NPDES construction dewatering general order requires submittal of a NOI before beginning the activity. If numerous discharge locations are anticipated, the general order allows the applicant to submit a Pollution Prevention and Monitoring and Reporting Plan (PPMRP) that provides for consolidated identification of discharges, monitoring, and reporting procedures.

Local Regulations

City of Sacramento 2030 General Plan (March, 2009)

The following City of Sacramento General Plan goals and policies are applicable to hydrology and water quality.

Environmental Constraints: Flooding Hazards

Goal EC 2.1 Flood Protection. Protect life and property from flooding.

Policy EC 2.1.6 New Development. The City shall require evaluation of potential flood hazards prior to approval of development projects.

Environmental Resources: Water Resources

Goal ER 1.1 Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American rivers, and their shorelines.

Policy 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, stormwater

treatment, runoff reduction measures, best management practices (BMPs) and Low Impact Development (LID), and hydromodification strategies consistent with the city's NPDES Permit.

- Policy 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.
- Policy 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.
- Policy 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.

Utilities: Stormwater Drainage

- GOAL U4.1 Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally-sensitive, accommodate growth, and protect residents and property.
- Policy U4.1.1 Adequate Drainage Facilities. The City shall ensure that all new drainage facilities are adequately sized and constructed to accommodate stormwater runoff in urbanized areas.
- Policy U4.1.2 Master Planning. The City shall implement master planning programs to:
- Identify facilities needed to prevent 10-year event street flooding and 100-year event structure flooding
 - Ensure that public facilities and infrastructure are designed pursuant to approved basin master plans
 - Ensure that adequate land area and any other elements are provided for facilities subject to incremental sizing (e.g., detention basins and pump stations)
- Policy U4.1.3 Regional Stormwater Facilities. The City shall coordinate efforts with Sacramento County and other agencies in the development of regional stormwater facilities.

- Policy U4.1.4 Watershed Drainage Plans. The City shall require developers to prepare watershed drainage plans for proposed developments that define 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.
- Policy U4.1.5 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.

City of Sacramento Stormwater Management and Control Code

The City Stormwater Management and Control Code (Chapter 13.16 of the City Code) is intended to control non-stormwater discharges to the stormwater conveyance system; eliminate discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater; and reduce 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 (See the descriptions of the NPDES in the discussions of federal and State water quality regulations above). Discharges from specified activities that do not cause or contribute to the violation of any plan standard, such as landscape irrigation and lawn watering and flows from fire suppression activities, are also exempt from this prohibition. Discharges to the stormwater conveyance system of pumped groundwater not subject to a NPDES permit may be permitted upon written approval from the City and in compliance with the City's conditions of approval.

City of Sacramento Grading, Erosion, and Sediment Control Ordinance

The City Grading, Erosion, and Sediment Control Ordinance (Title 15, Chapter 15.88 of the City Code) sets forth rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities. With limited exceptions, grading approval must be received from the City Department of Utilities before construction. All project applicants, regardless of project location, are required to prepare and submit separate erosion and sediment control plans applicable to the construction and post-construction periods. The ordinance also specifies other requirements, such as written approval from the City for grading work within the right-of-way of a public road or street, or within a public easement.

City of Sacramento SQIP (2009)

The City of Sacramento SQIP provides a comprehensive plan to direct the Sacramento City Stormwater Management Program (Sacramento City Stormwater Program) and its priorities and activities through the 2008-2013 permit term. Included in the City of Sacramento SQIP is information on the Sacramento City Stormwater Program's history and accomplishments as well as a description of specific activities for the 2008-2013 permit term. The following sections are included in the City of Sacramento SQIP: Introduction, Program Management, Construction Element, Commercial/Industrial Element, Municipal Operations Element, Illicit Discharge Element, Public Outreach Element, and New Development Element. The City of Sacramento Stormwater Management Program is designed to reduce stormwater pollution to the maximum

extent practicable and eliminate prohibited non-stormwater discharges in accordance with federal and State laws and regulations.

The Construction Element was designed to reduce the discharge of stormwater pollutants to the maximum extent practicable by requiring construction sites to reduce sediment in site runoff and reduce other pollutants such as litter and concrete wastes through good housekeeping procedures and proper waste management. The Construction Element strategy includes the following components:

- Ensure that plan review and approval procedures, standards and field requirements are clear and effective.
- Ensure that the development and construction community:
 - Comply with local grading, erosion and sediment control requirements
 - Properly implement the required BMPs associated with construction activities
 - Maintain good housekeeping practices associated with construction activities
 - Obtain coverage under the State Construction General Permit for projects that disturbed one or more acres of land.
- Ensure that City project managers:
 - Obtain coverage under the State Construction General Permit for all municipal improvement projects that disturbed one or more acres of land
 - Comply with local erosion and sediment control requirements.
- Provide plan review, inspections and enforcement.
- Evaluate and incorporate new technologies and alternative control measures.
- Provide training and technical support to Sacramento City staff on local and state stormwater quality requirements and procedures.
- Conduct outreach and provide guidance to the development and construction community on stormwater quality requirements related to construction activities.
- Conduct periodic meetings with Sacramento City Stormwater Program Inspectors to evaluate current and proposed ESC requirements and good housekeeping practices.

The New Development Element was designed to protect local creeks and rivers by reducing the discharge of stormwater pollutants that could result from new developments to the maximum extent practicable and by mitigating increased flows that could cause erosion and degrade habitat. The New Development Element strategy for reducing stormwater pollutants from new development includes the following:

- Incorporate water quality and watershed protection principles into Sacramento City procedures and policies.
- Improve the development review process to ensure effective implementation of the development standards for new development and redevelopment projects.
- Implement stormwater quality development standards for all regulated new development and redevelopment projects.
- Ensure that standards and maintenance requirements are clear and effective.
- Require maintenance provisions for all privately maintained treatment control measures.
- Develop the hydromodification management plan and update the Stormwater Design Manual with new design criteria for hydromodification measures.
- Evaluate new technology and alternative control measures.
- Provide training and technical assistance to Sacramento City staff (planners, engineers, CIP project managers, building and construction inspectors, etc) on stormwater quality

requirements and procedures to ensure effective implementation of stormwater quality development standards for municipal projects and private development projects.

- Provide training and outreach to the development community on the stormwater quality development standards.

City of Sacramento Floodplain Management Ordinance

This Floodplain Management Ordinance is designed to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The Ordinance regulates development which is or might be dangerous to health, safety, and property by requiring at the time of initial development, or substantial improvement, methods of protection against flood damage in areas vulnerable to flooding in order to minimize flood damage. The Ordinance regulates the following developmental impacts: filling, grading or erosion, alteration of natural flood plains, stream channels or water courses, the imposition of barriers which increase flood hazards, or any other impacts that aggravate or cause flood hazards.

Resolution 93-164

Resolution 93-164, with regard to storm drainage, is intended to prevent street flooding during 10-year return storms and to prevent flooding of structures during 100-year return storms at complete buildout in each drainage basin.

5.6.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

An impact is considered significant if the proposed project would result in any of the following:

- 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 project;
- Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of street flooding in the event of a 10-year storm; 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.

Method of Analysis

The information contained in the Hydrology, Water Quality, and Drainage chapter of this EIR was derived primarily from the *Drainage Report (Aspen 1)* that was prepared for the proposed project by Wood Rodgers, as well as the *Sacramento 2030 General Plan* and the *Sacramento 2030 General Plan Master EIR*. Determinations of significance were made based on the existing, or planned, infrastructure's ability to accommodate the proposed project. In addition, impacts to water quality were assessed in relation to the City of Sacramento's Ordinances to determine the potential for adverse impacts.

Hydrologic and Hydraulic Analysis

The on-site hydrology was modeled using the EPA SWMM program (version 5.0.022), which quantified the sub-drainage areas and their individual runoff contributions based on the proposed soil conditions, rainfall depth, and storm event patterns. The highest peak conditions were determined by evaluating two design rainfall scenarios: a six-hour storm duration; and a 24-hour storm duration. The 10-year and 100-year design storm events were included in the analyses; thus, a total of four design storm events were analyzed for the project. In addition, a continuous simulation analysis was performed for the proposed project's Low Impact Development (LID) system using approximately 10 years of historical rainfall data. The hydraulics of the system (storm drain, retention, flood control, unsteady flow routing, etc.) are simulated in an XP-SWMM model developed by Wood Rodgers. Summaries of the key parameters and assumptions used for the modeling can be found in the drainage analysis included as Appendix L of this Draft EIR. All detailed modeling of the on-site storm drains and overflow paths are included in the drainage report (See Appendix L).

Project Impacts and Mitigation Measures

5.6-1 Construction-related impacts to surface water quality.

The development of the proposed project would involve the construction of residential and commercial buildings, roadways, parking lots, and infrastructure, which would require grading, excavation, and other construction-related activities that could cause soil erosion at an accelerated rate during storm events. All of these activities have the potential to affect water quality by contributing to localized violations of water quality standards if stormwater runoff from construction activities enters receiving waters.

Construction activities such as grading, excavation, and trenching for site improvements would result in disturbance of soils at the project site. Construction site runoff can contain soil particles and sediments from these activities. Dust from construction sites can also be transported to other nearby locations, where the dust can enter runoff or water bodies. Spills or leaks from heavy equipment and machinery, staging areas, or building sites can also enter runoff. Typical pollutants could include petroleum products and heavy metals from equipment and products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products could result in water quality degradation if runoff containing the sediment entered receiving waters in sufficient quantities to exceed water quality objectives. Impacts from construction-related activities would generally be short-term and of limited duration.

Because the proposed project would require construction activities resulting in a land disturbance of more than one acre, the applicant is required by the State to obtain the General Permit for Discharges of Stormwater Associated with Construction Activity (CGP), which pertains to pollution from grading and project construction. Compliance with the Permit requires the project applicant to file a Notice of Intent (NOI) with the SWRCB and prepare a Stormwater Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP would incorporate BMPs in order to prevent, or reduce to the greatest feasible extent, adverse impacts to water quality from erosion and sedimentation. BMPs may include: scheduling or limiting activities to certain times of year, prohibitions of practices, maintenance procedures, and other management practices.

In addition, the applicant must comply with the City of Sacramento's Grading, Erosion, and Sediment Control Ordinance which requires that the applicant prepare an erosion and sediment control plan for both during and after construction of the proposed project to be included in the Improvement Plans. The City of Sacramento also requires that post-construction stormwater quality control measures be incorporated into development plans to minimize the increase of urban runoff pollution caused by development of the area.

In compliance with the Grading, Erosion, and Sediment Control Ordinance, the applicant must prepare and submit an Erosion and Sediment Control Plan (ESC) and a Post-construction Erosion and Sediment Control Plan (PC), which is included in the Drainage Report prepared for the proposed project, for the review and approval of the City of Sacramento. The preparation and implementation of the SWPPP, ESC, and post-construction stormwater management would ensure the quality of stormwater runoff. Therefore, the proposed project would have a ***less than significant*** impact to surface water quality due to construction activities.

Mitigation Measure(s)

None required.

5.6-2 Impacts related to water quality degradation associated with urban runoff from operation of the project.

The increased impervious area created by the development of the proposed project would alter the types and levels of pollutants that could be present in project site runoff. Runoff from streets, driveways, parking lots, and landscaped areas typically contains nonpoint source pollutants such as oil, grease, heavy metals, pesticides, herbicides, fertilizers, and sediment. Concentrations of pollutants carried in urban runoff are extremely variable, depending on factors such as the following:

- Volume of runoff reaching the storm drains;
- Time since the last rainfall;
- Relative mix of land uses and densities; and
- Degree to which street cleaning occurs.

The development of the project site would include significant re-grading to raise large portions of the property to allow for gradual slopes and access from surrounding (elevated) roadways, and to facilitate drainage. The rainfall/runoff would be directed through lot-level LID facilities and then overflow through street/gutter systems into median swale storage before being picked up by a conveyance pipe system and conveyed under South Watt Avenue. The project would drain in a southeasterly direction to a proposed culvert at South Watt Avenue and would then discharge to an off-site retention basin east of South Watt Avenue. The project would not drain to a municipal storm drain system or receiving waters. The location of the discharge out of the project site is shown on Figure 5.6-2 and the location of the retention basin/system is shown on Figure 5.6-3. Inlets, outlet structures, and release points are also included on Figure 5.6-4. Runoff from the project would terminate into an off-site retention basin to the east of the project site on land currently owned by the applicant. The retention basin would

retain the entire annual volume of runoff and 100-year design storm event, and flows would leave the basin through infiltration and evaporation.

The Sacramento General Plan MEIR notes that water quality impacts due to urban runoff generated by General Plan buildout would be an ongoing concern, and requires mitigation for the effects of development on water quality associated with urban runoff. Ongoing water quality impacts require runoff control measures to trap pollutants, reduce flows, and promote infiltration.

Such measures include provision for on-site retention and detention storage; design of storm drainage to slow water flows and depress peak flow volumes; minimize impervious surfaces; and maximize percolation, evaporation, and evapotranspiration of stormwater.

Based on information included in the Sacramento Stormwater Quality Partnership's (Partnership)'s Municipal Separate Storm Sewer System (MS4) Permit, pollutants of concern for the Sacramento area are listed in Table 5.6-1. Table 5.6-1 also addresses the mechanisms used to remove each pollutant.

Importantly, the stormwater treatment approach is also used for the project, whereby stormwater runoff flows through multiple BMPs prior to discharging into the retention basin.

The project would include an extensive LID and hydromodification management system that would provide significant hydromodification management benefits for the project, resulting in the mitigation of any potential water quality impacts. Figure 5.6-5 illustrates the general layout of the proposed LID facilities. It should be noted that 96 percent of the impervious cover within the project site is disconnected from the storm drain system and discharges directly into vegetation or LID/stormwater BMP features. The LID facilities proposed for use in the project include the following (See Figures 5.6-6 through 5.6-10):

- Infiltration planters (eight-foot residential);
- Infiltration planters (eight-foot non-residential);
- Infiltration planters (14-foot);
- Hydromodification facilities;
- Open space swales;
- Vegetated median swale; and
- Bioretention.

Post-construction stormwater quality measures and Best Management Practices (BMPs) for the project consist primarily of the LID features and facilities listed above. The project would also include other measures such as disconnected impervious cover, native/adapted vegetation, and interceptor trees. In addition, the project would comply with construction phase BMPs and monitoring requirements from the State's CGP. Furthermore, the project applicant would be required to comply with the City's Stormwater Management and Discharge Control Ordinance (Title 13).

Figure 5.6-2
 Project Drainage Sheds

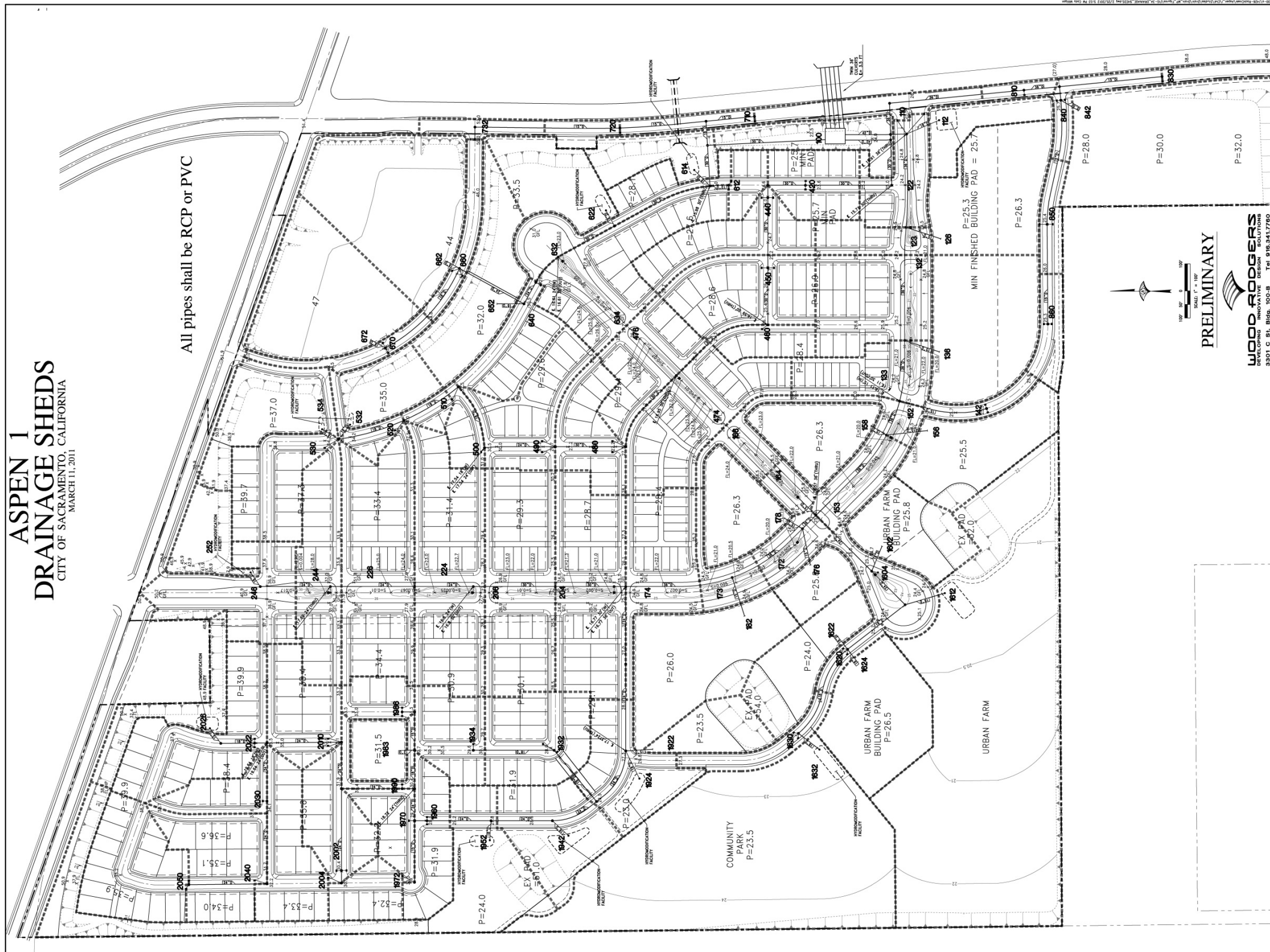
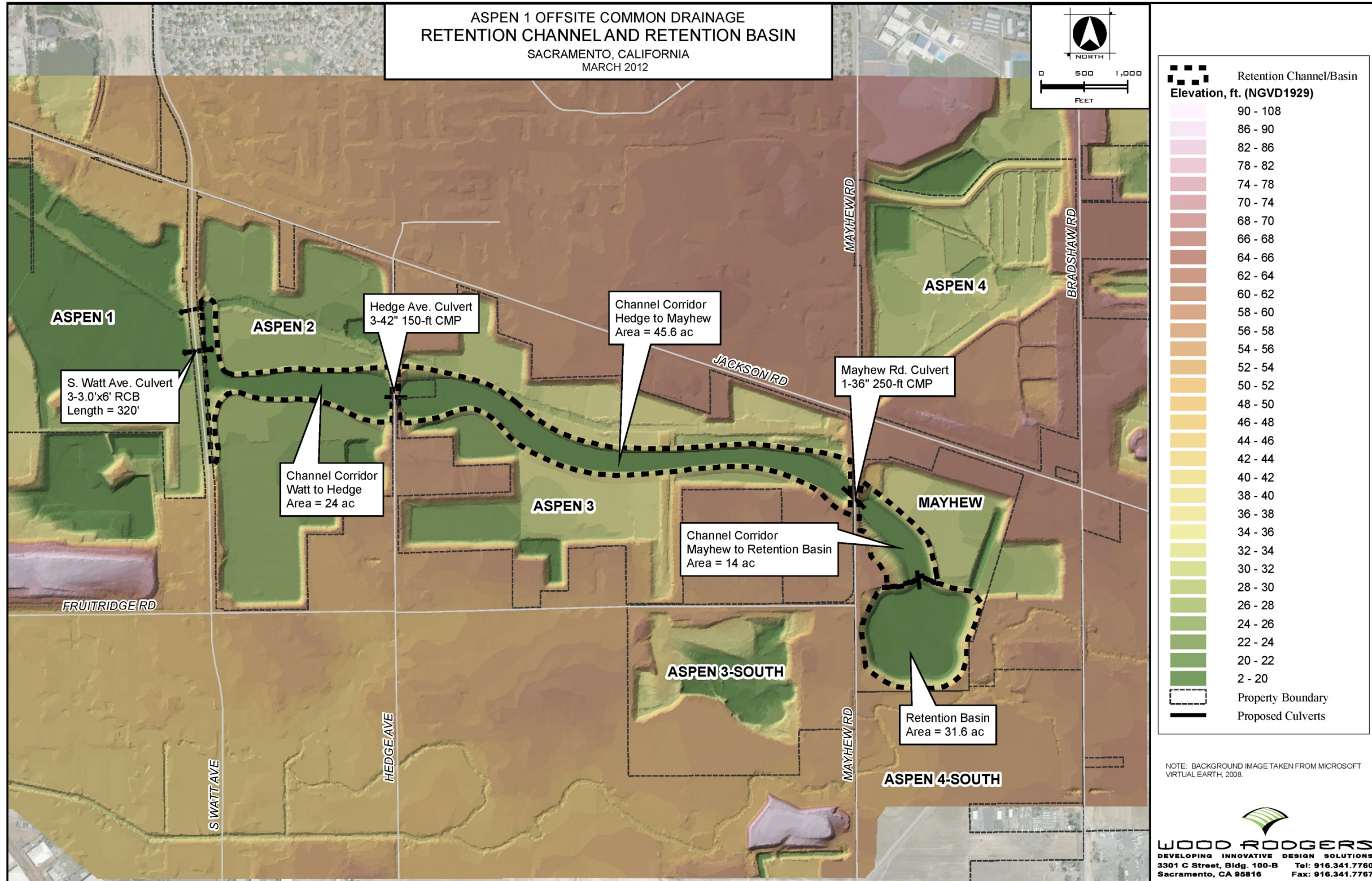
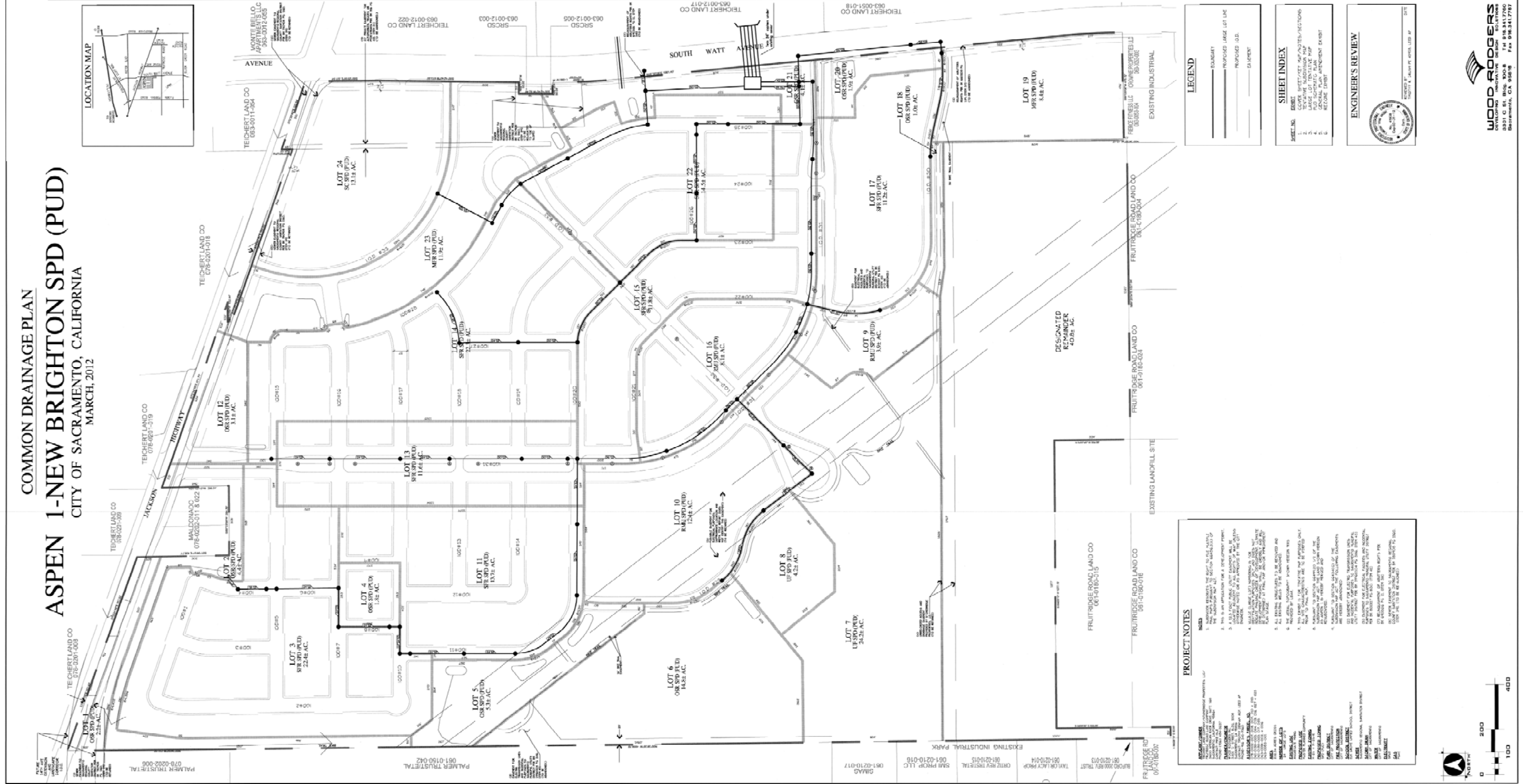


Figure 5.6-3
Retention Channel and Retention Basin



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Figure 5.6-4
 Common Drainage Plan



**Table 5.6-1
 Urban Runoff Pollutants of Concerns and the Proposed Project's Treatment Measures**

Pollutants of Concern	Infiltration Planters	Hydro-Modification	Bioretention	Vegetated Swales	Open Space Swales	Retention ³	Mulch	Plant Nutrient	Phyto-Remediation	Education BMPs	O&M Practices
Total Suspended Solids (TSS) and Total Dissolved Solids (TDS)	X	X	X			X	X				
Metals (Copper, Lead, and Mercury)	X	X	X	X		X	X		X		
Coliforms/Pathogens	X	X	X			X					
Total Nitrogen ¹	X	X	X			X		X			
Biological Oxygen Demand (BOD)						X		X			
Total Organic Carbon (TOC)						X		X			
Organophosphate Pesticides (Chrysene ² , Diazinon ² , and Chlorpyrifos)						X			X	X	X

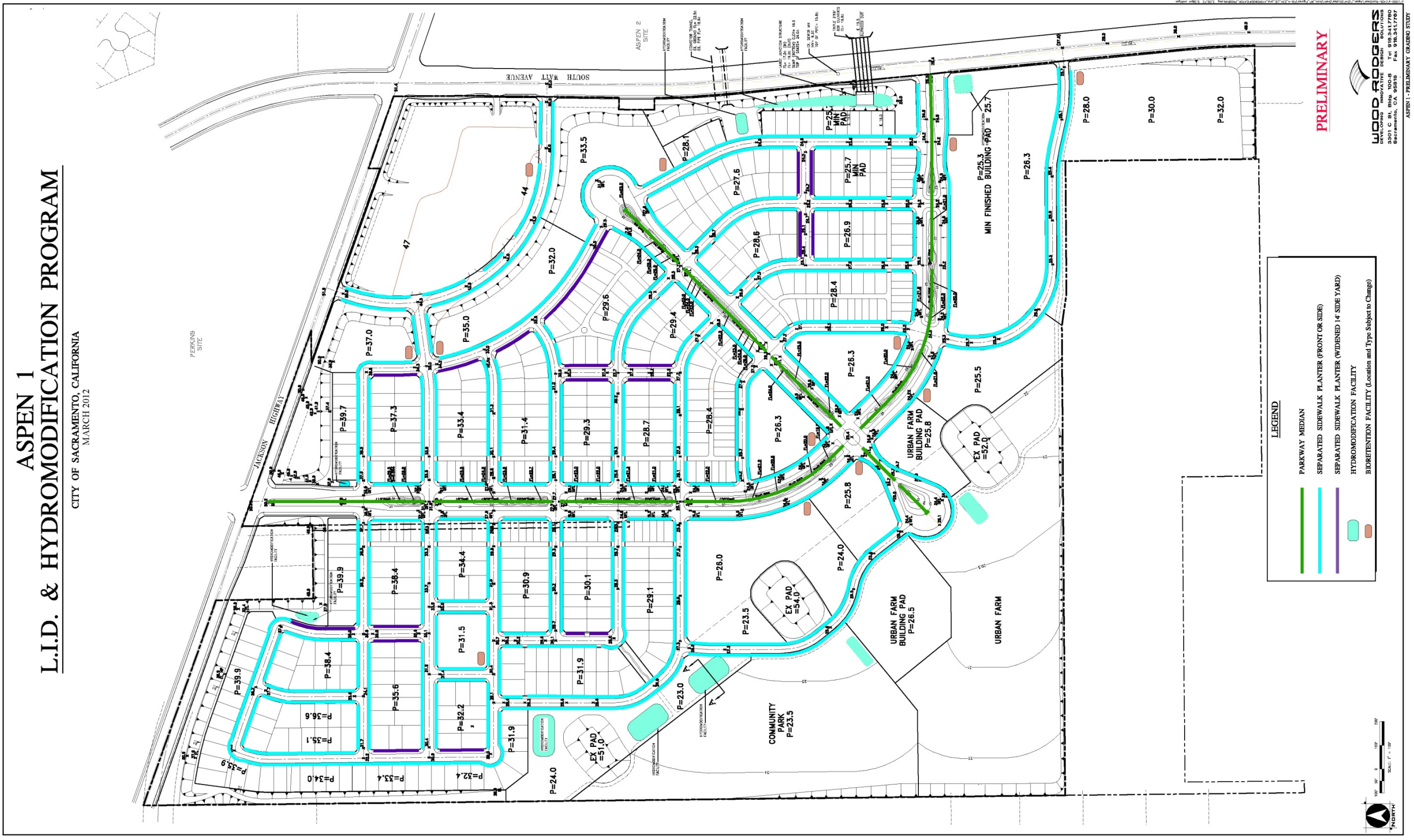
¹ Nitrate removal can be enhanced with raised underdrain.

² Phased out of use.

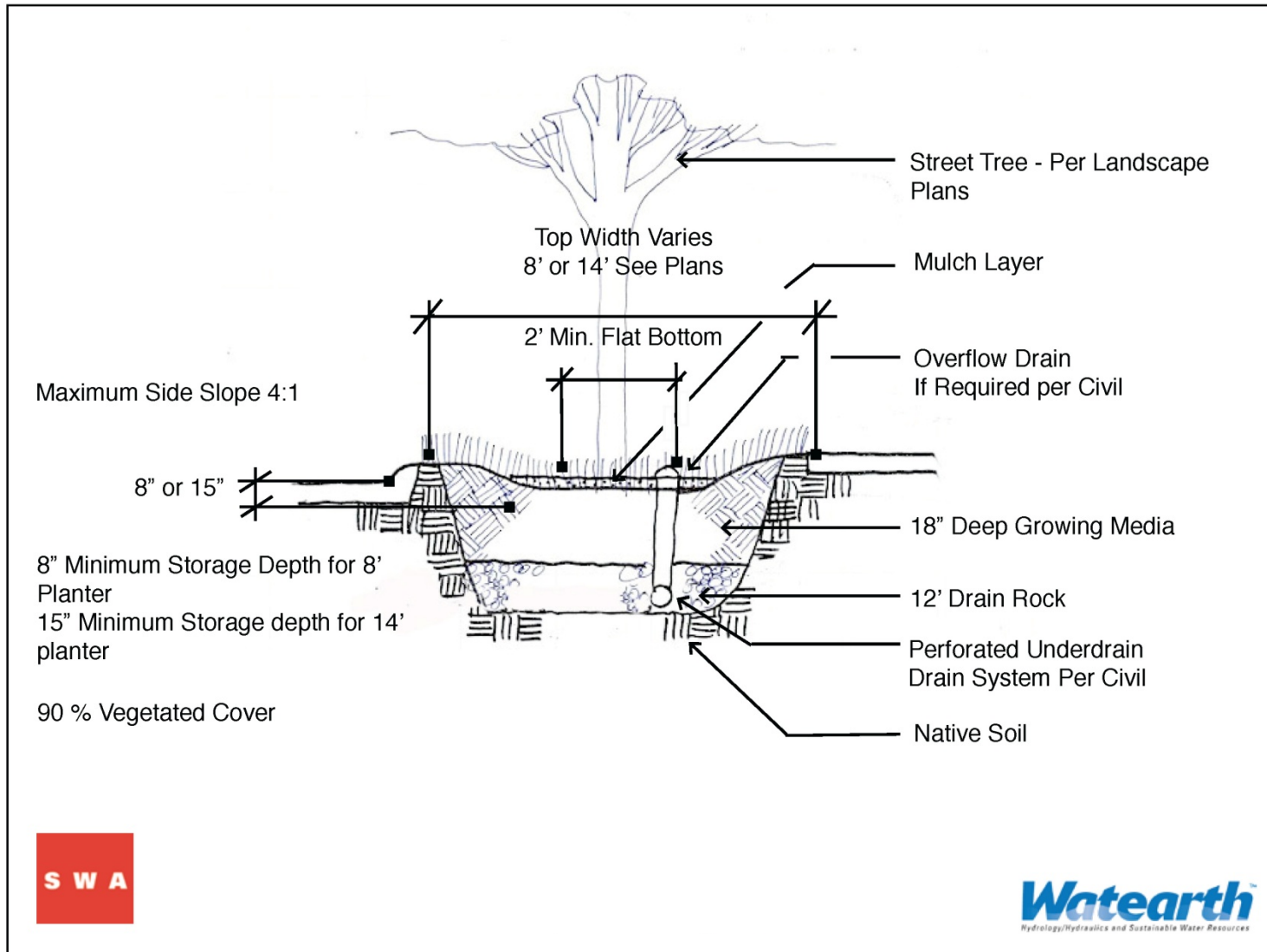
³ Retention basin retains 100 percent of stormwater runoff on-site. Retention-irrigation systems typically classified as 100 percent pollutant removal.

Source: Waterearth, Inc., March 2012.

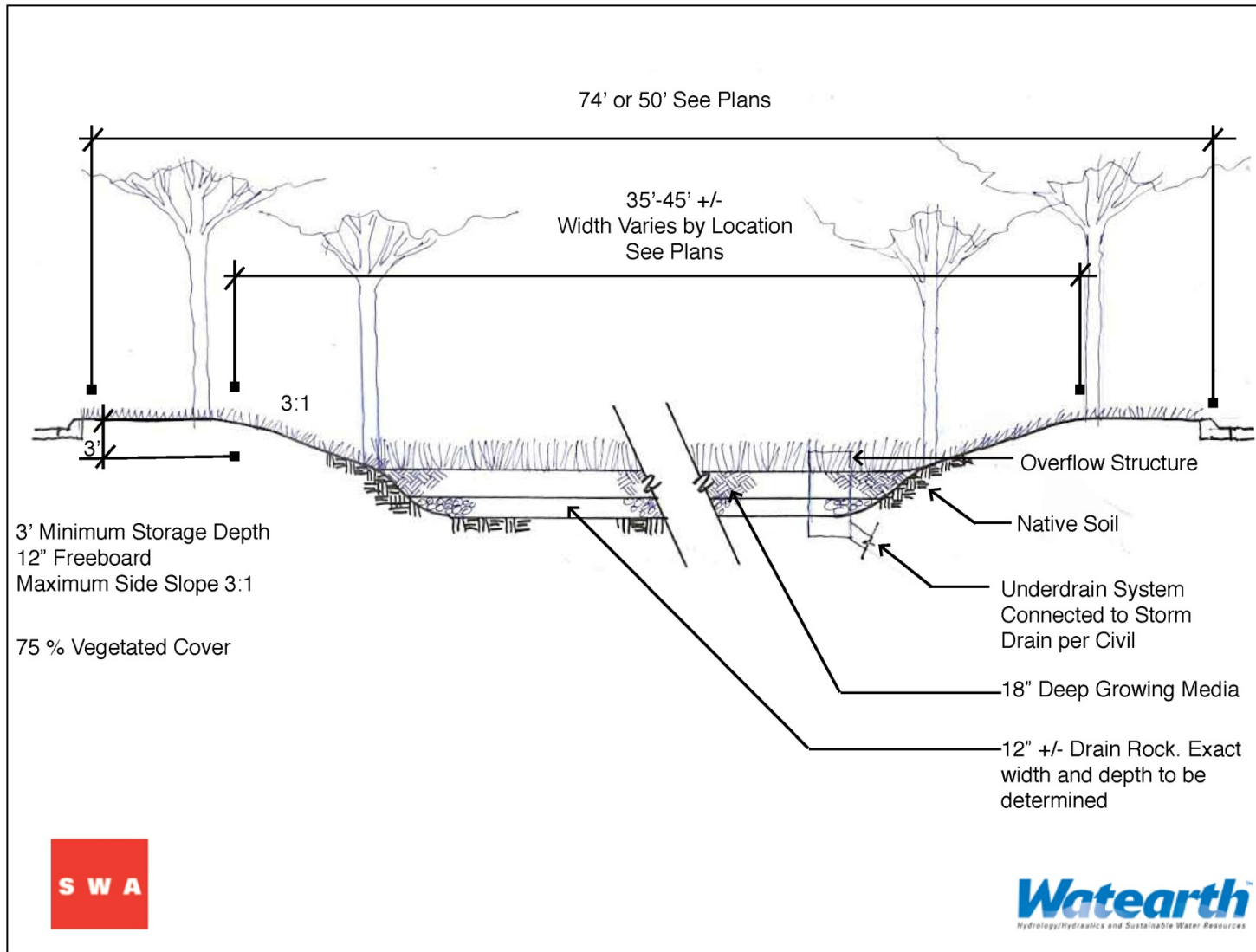
Figure 5.6-5
 Proposed LID and Hydromodification Program



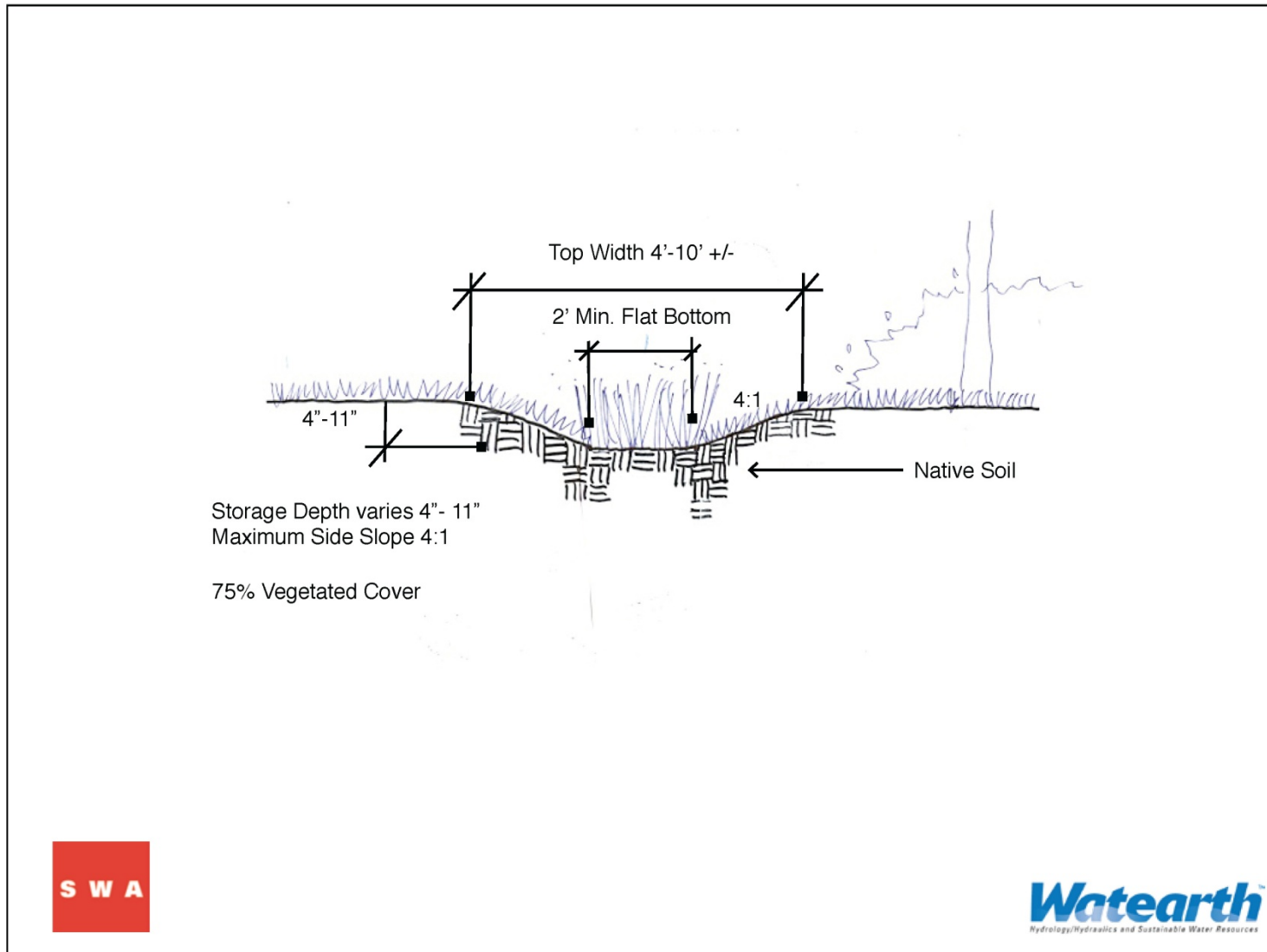
**Figure 5.6-6
Infiltration Planter**



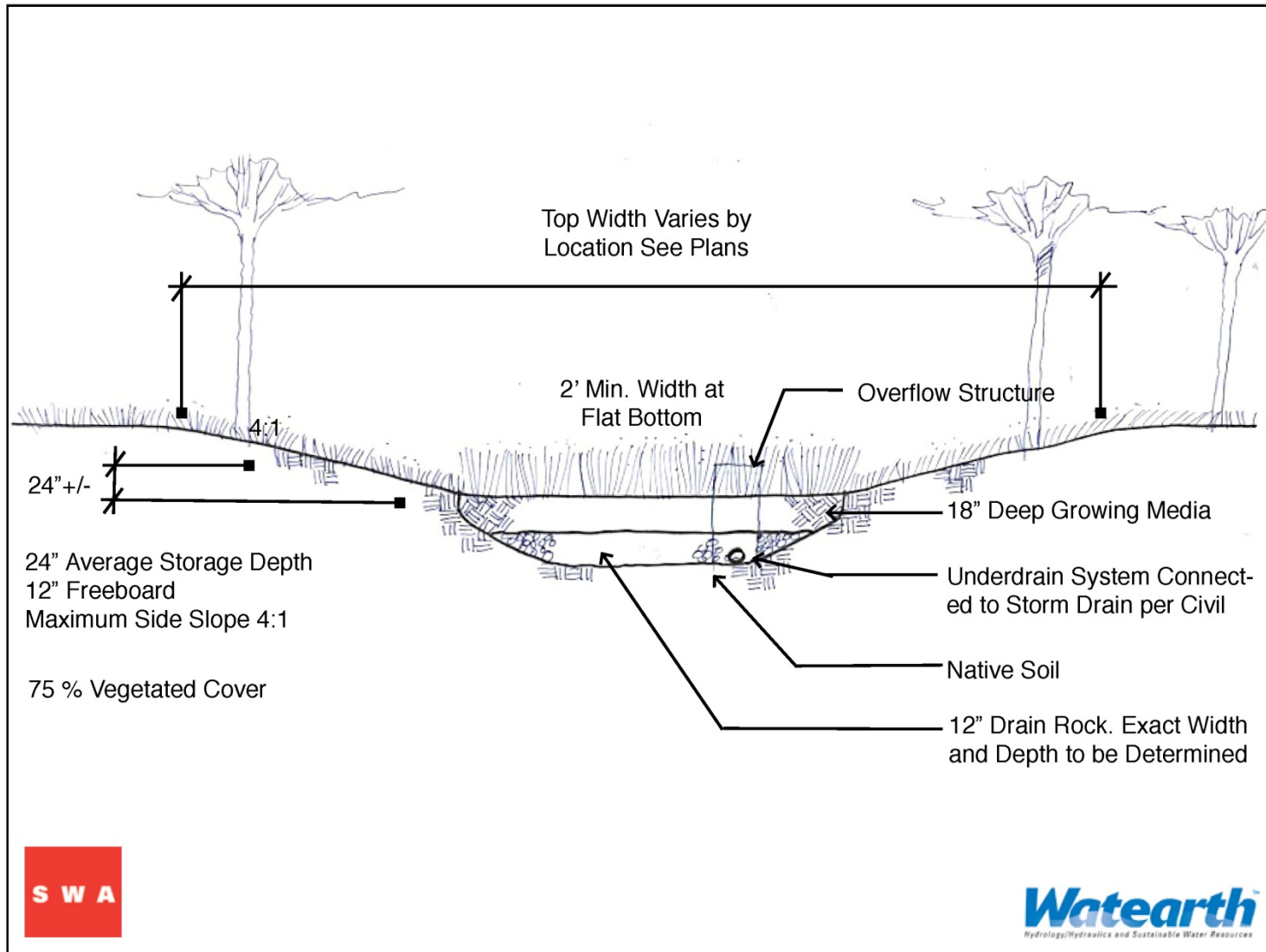
**Figure 5.6-7
Vegetative Median Swale**



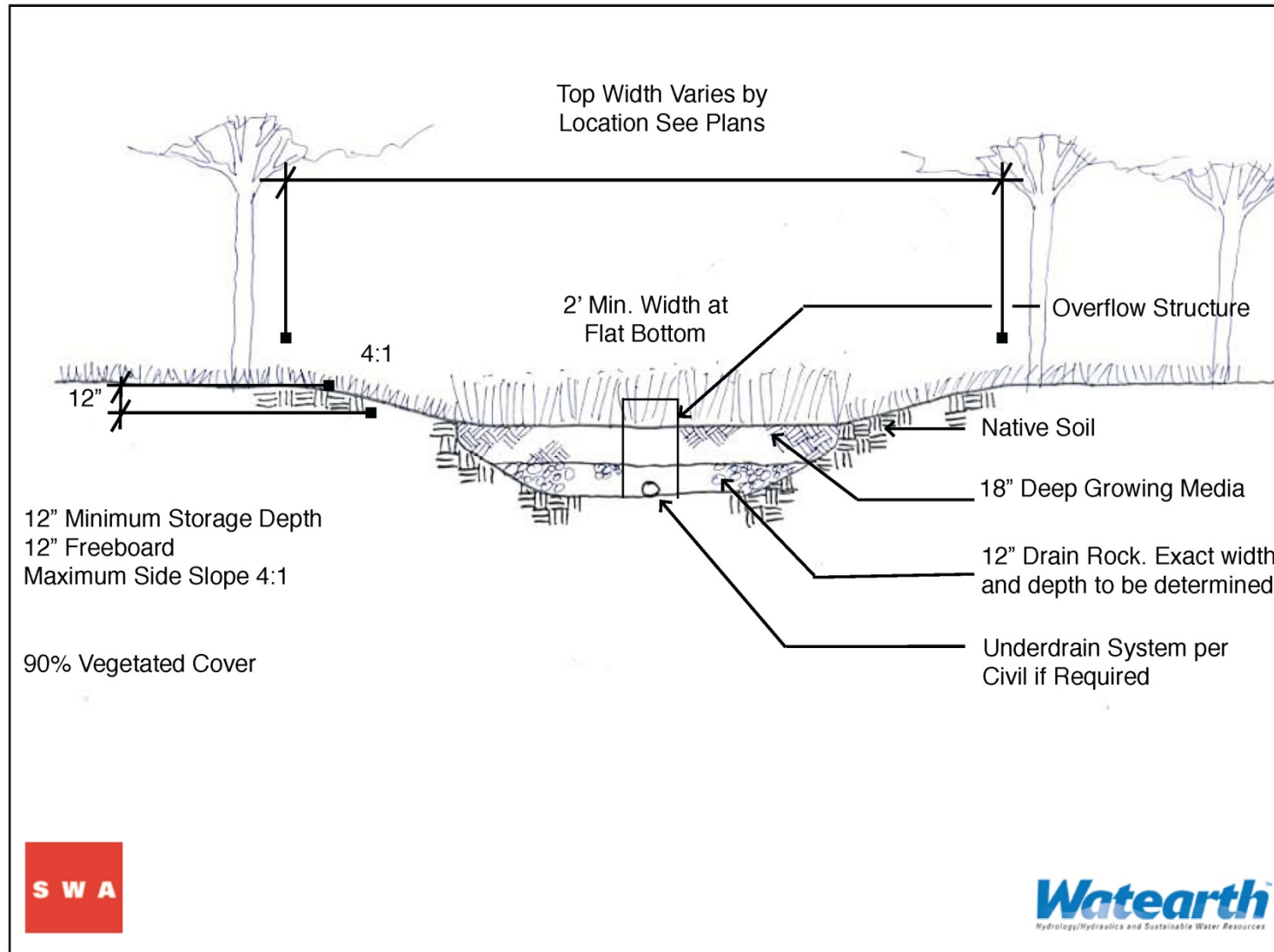
**Figure 5.6-8
Open Space Swale**



**Figure 5.6-9
Hydromodification Facility**



**Figure 5.6-10
Bioretention Facility**



This ordinance requires that the Improvement Plans incorporate controls to minimize the ongoing, post-construction discharge of stormwater pollutants from the project.

An Operations and Maintenance (O&M) Plan, entitled *Operations & Maintenance Plan for Low Impact Development and Post-Construction Stormwater BMPs in Aspen 1 of New Brighton* is attached as Appendix A of the drainage analysis (See Appendix L of this Draft EIR). The O&M Plan addresses vegetative, structural, and growing/filter media elements of the LID facilities. While organic maintenance practices are recommended and use of fertilizers discouraged, at a minimum Integrated Pest Management practices are required. Compliance with this O&M Plan is expected to enhance the long-term functionality of the LID facilities to treat stormwater runoff.

To minimize the risk of vector issues, the O&M Plan specifies removal of excess vegetation and debris from the LID facilities. Inspection is encouraged to assess erosion, ponding, and excessive drain time in the facilities. Additionally, modifications and additional amendments to the growing media are recommended to rectify ponding in excess of three days (72 hours) after the introduction of runoff into the facilities during the peak mosquito-breeding months of April to October.

To reduce pollutants associated with landscape maintenance, organic farming is recommended on the Urban Farm. In addition, homeowner education aimed to reduce or eliminate reliance on chemical pesticides, herbicides, and fertilizers includes educational signage related to water quality and BMPs within the Vegetated Median Swales in the public ROW. For those yards maintained with fertilizer/pesticides, the eight-foot residential infiltration planters provide the first of a series of stormwater BMPs to treat the stormwater runoff from lawns.

Conclusion

As discussed above, the project would include an extensive LID and hydromodification management system that would provide significant hydromodification management benefits for the project, resulting in the mitigation of any potential water quality impacts. In addition, the project would be required to comply with construction phase BMPs and monitoring requirements from the State's Construction General Permit, as well as the City's Stormwater Management and Discharge Control Ordinance (Title 13). Therefore, the project would not substantially degrade water quality or 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 project, and the project's impact would be ***less than significant***.

Mitigation Measure(s)

None required.

5.6-3 Impacts related to flooding as a result of implementation of the project.

The proposed project includes a Large Lot Tentative Map subdividing the project into 24 large lots. Consistent with City of Sacramento policy, the Drainage Master Plan identifies facilities considered to be "common drainage" (those facilities required to serve the 24 large lots), including the storm drain trunk pipe system serving the large lot parcels, the box culvert structure at South Watt Avenue, and the retention basin east of South Watt

Avenue. The drainage plan for the project is shown in Figure 5.6-11. The base condition with respect to discharge from the site assumes no development with native vegetation on site. The project would discharge to a retention basin to the east; therefore, under post-development conditions, the project site would not discharge to Morrison Creek.

The proposed preliminary on-site storm drain pipe layout was sized using the Sacramento Method for 10-year design flows, and City of Sacramento pipe and cover requirements. The site is divided into seven major trunk systems with sub-sheds. The project site would drain in a southeasterly direction to a proposed culvert at South Watt Avenue and discharge to an off-site retention basin east of South Watt Avenue.

On-site grading is designed for the 100-year flows in excess of the 10-year pipe capacity to flow down the streets and medians towards the intersection of Rock Creek Parkway/South Watt Avenue. The building pads would be set 1.5 feet above the overland control point and 1.2 feet above the adjacent 100-year water surface, whichever is greater. The project site would be graded to drain in a general north-to-south direction towards the collector street Rock Creek Parkway which includes a 74-foot median, turning and draining from west to east as Rock Creek Parkway connects with South Watt Avenue.

Streets would provide overland release for flows exceeding the pipe system capacity. The urban farm, open space lots, and community park would be at lower elevations. The existing site will be mass graded and raised utilizing import from the off-site retention basin (approximately 1,300,000 cubic yards) (See Figure 5.6-12).

The project site, as well as the adjacent off-site retention lands to the east, has operated as an aggregate mining site and is configured as depressed/excavated areas that collect, infiltrate, and evaporate all rainfall that reaches them. As such, under existing conditions, these areas act as retention basins. Thus, runoff from the project site is currently retained on-site and does not discharge off-site in undeveloped conditions. However, under the proposed project conditions, with buildout of the proposed land uses, the project site would no longer be efficiently designed to contain all runoff. Therefore, excess runoff is proposed to be conveyed eastward and drain through proposed culverts under South Watt Avenue.

The receiving off-site lands to the east of South Watt Avenue are private lands (owned by the proposed project applicant) in Sacramento County that do not currently discharge to Morrison Creek during storm events. As discussed above, the project would utilize the proposed LID/Hydromodification facilities to treat urban runoff and direct the treated urban runoff from the proposed project area to the retention area. The retention area would be designed to retain stormwater runoff at an elevation that is low enough to prevent retained stormwater from hydraulically influencing the project site. The drainage analysis includes an evaluation of the flow, storage, infiltration, and evaporation of the off-site lands under historical and design storm conditions, and provides design recommendations to prevent flooding on the project site, while retaining all runoff from both on-site and off-site areas tributary to existing sites. Figure 5.6-9 identifies the location and general shape of the retention site east of South Watt Avenue.

Figure 5.6-11
 Drainage Plan

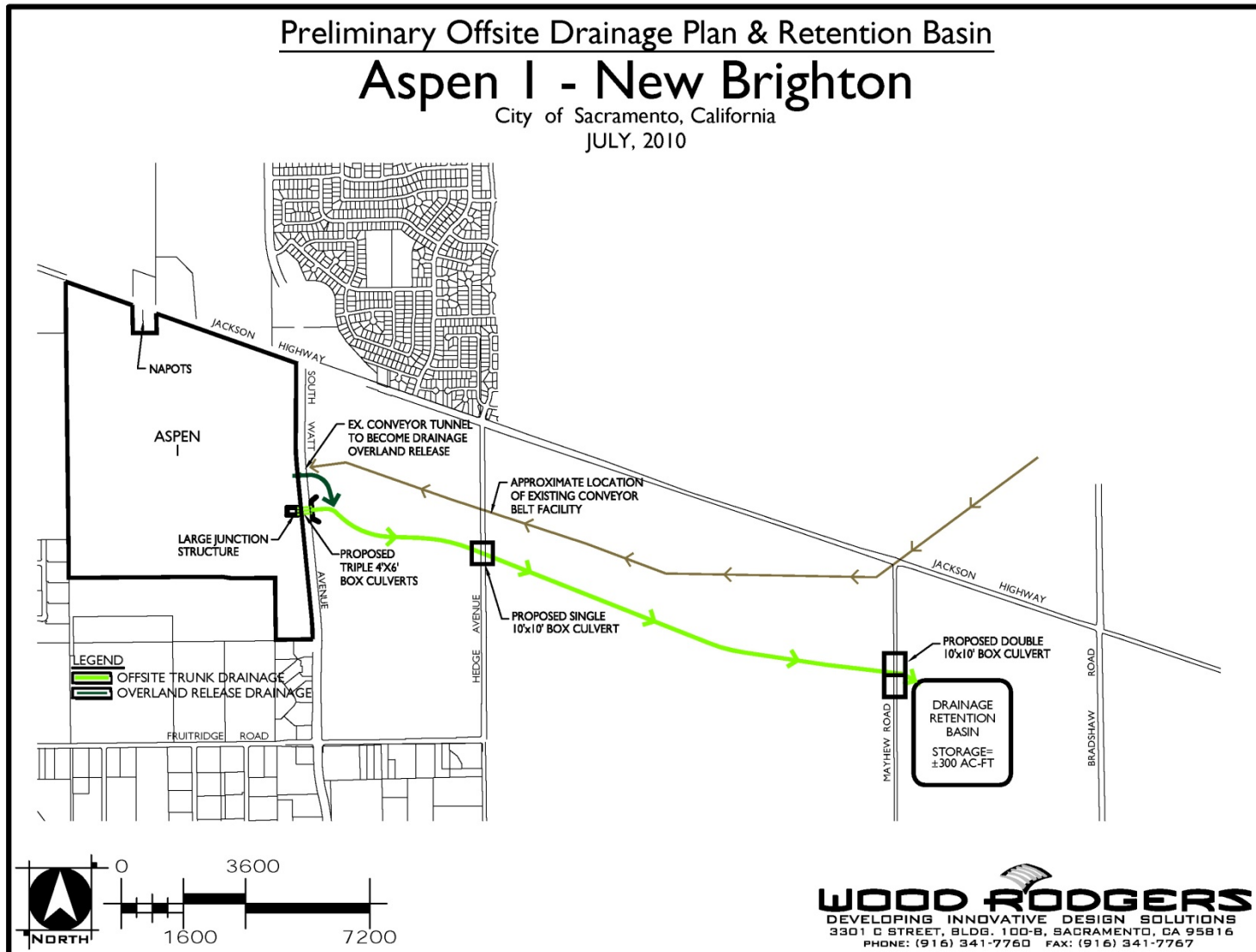
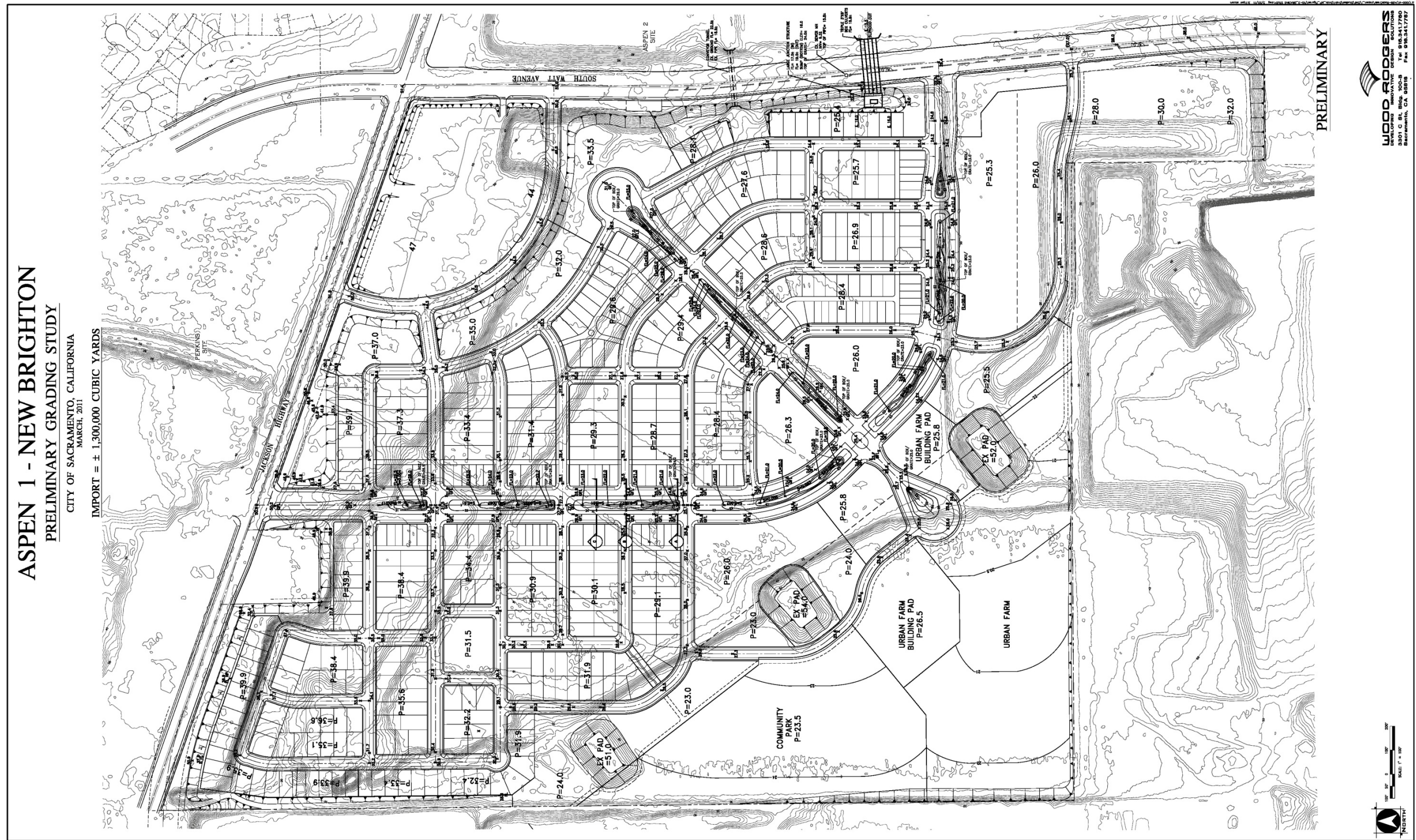


Figure 5.6-12
Preliminary Project Grading



It should be noted that the newly constructed retention basin would remain privately owned, operated and maintained after the proposed project is completed; therefore, City staff has decided to defer the primary responsibility of design review for the proposed downstream retention basin design to Sacramento County. In order to satisfy the City's project requirements, the County's Department of Water Resources is being provided the opportunity to review and comment on the proposed drainage of lands within the County's jurisdiction, including land from the City draining into the County.

The proposed off-site retention plan provides a compartmentalized approach by isolating the drainage corridor and retention area for project site runoff, while also isolating separate retention along both sides of the corridor for the some of the remaining off-site area. This configuration allows for maximizing infiltration and evaporation, while preventing stormwater runoff from backing up and affecting the project site. Because the compartmentalized approach relies on the compartments remaining isolated, all areas where retention is proposed were evaluated to determine whether there is sufficient capacity to prevent overflow and interconnection of storage.

Impacts Related to Hydromodification

As indicated in the *Sacramento Stormwater Quality Partnership Hydromodification Management Plan* (HMP) submitted on January 28, 2011, the proposed project is located within an area required to meet future hydromodification management requirements. Although the City's Hydromodification Management requirements are not in effect at the time of preparation of this EIR, the extensive LID and hydromodification system that is proposed would provide significant hydromodification management benefits for the project (See Impact 5.6-1 for a detailed discussion of the LID and Hydromodification System).

Figure 5.6-2 illustrates the general layout of the proposed LID facilities. Runoff from the project would terminate into an off-site retention basin to the east of the project site on land currently owned by the applicant. The retention basin would retain the entire annual volume of runoff and 100-year design storm event, and flows would leave the basin through infiltration and evaporation.

While all flows would be eventually retained in an off-site retention basin, flow duration exceedance curve comparisons for discharge leaving the project site illustrate that flow durations with the LID system are closer to undeveloped conditions than those without the LID system. Discharges from the LID Continuous Simulation model are also generally and consistently lower than those from the No LID Continuous Simulation model. Compared with the No LID scenario, an average reduction of approximately 50 percent in runoff volumes was reported for the LID scenario using Continuous Simulation. Similarly, peak flows were reported to be approximately 53 percent lower under the LID Continuous Simulation run as compared to the No LID Continuous Simulation.

It should be noted that the drainage analysis indicates that changes to the LID/Hydromodification facilities layout or configuration should be evaluated to confirm that the system functions as intended. In particular, use of facilities other than bioretention in the commercial, parks, schools, and high-density residential areas should be evaluated for similar hydrologic performance. Additional refinements to the system

layout/configuration may also increase the effectiveness of the LID/Hydromodification facilities and further reduce the storm drain requirements.

It should also be noted that, as discussed above in the Regulatory Setting section, pursuant to Resolution 93-164, the City's Department of Utilities implemented a Master Planning Program to, in part, meet the goal of preventing street flooding during 10-year return storms and preventing flooding of structures during 100-year return storms at complete buildout in each drainage basin. The proposed project would be consistent with the City's Master Planning Program for storm drainage.

Conclusion

Overall, the drainage analysis indicates that the proposed design of the on-site drainage system, by incorporating LID/Hydromodification facilities in combination with the off-site retention basin, would provide runoff reduction and the required retention to effectively convey flows of all major storm events. In addition, the proposed project would meet water quality enhancement goals and flood safety requirements. However, should the project not implement the proposed LID and Hydromodification Program, as well as the recommendations contained in the drainage analysis, the project would have a **potentially significant** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

5.6-3 *Prior to the issuance of a grading permit, the plans for the project shall illustrate that all of the recommendations contained within the drainage report will be implemented on the project site, for the review and approval of the City of Sacramento Department of Utilities.*

5.6-4 Impacts related to exposure of people and structures to flood hazards on the project site.

As discussed above, FEMA prepared preliminary FIRMs for the project site in January 2011 that identifies the site as Zone X, which is protected by levees. A Letter of Map Revision has been initiated that may become effective, in whole or in part, sometime after the August 16, 2012 FIRM for Sacramento County is finalized which could depict the project site as Zone A. Zone A is considered a Special Flood Hazards Area (SFHA) subject to inundation by a 100-year flood event for which mandatory flood insurance purchase requirements and floodplain management standards apply.

The National Flood Insurance Program (NFIP) Regulations in Title 44 of the Code of Federal Regulations (CFR) Section 60.3 require that for sites within Zone A, the lowest floor (including basement) of all new construction and substantial improvements of residential structures be elevated to or above the Base Flood Elevation (BFE). Similarly, new or substantially improved non-residential structures must either be elevated or floodproofed to or above the BFE. Without compliance with NFIP regulations, development of the proposed project could result in exposure of people and structures to flood hazards (including street flooding) on the project site. The BFE has not been

established, and until this has been established the project site would be considered as within an area subject to flooding in a 100-year event.

In order to fully remove an area from a SFHA, if it is so designated, it is likely that off-site improvements within the County of Sacramento must be completed. Without implementation of the necessary off-site improvements, the project would not comply with NFIP regulations and a **potentially significant** impact would occur related to exposure of people and structures to flood hazards on the project site in the event the site was developed and occupied.

Mitigation Measure(s)

Implementation of the following mitigation measure would ensure that the project site is removed from the FEMA SFHA prior to development, if it is so designated, thus, reducing the above impact to a *less-than-significant* level.

5.6-4 *In the event that the Project site or a portion thereof is designated in a SFHA, the applicant, prior to the approval of any building permit that would allow for the construction of a new building, shall demonstrate to the City through appropriate analysis and the issuance of a Letter of Map Revision (LOMR), Conditional Letter of Map Revision (CLOMR), or a new FIRM by FEMA that the property for which such permit is sought is outside of a FEMA Special Flood Hazard Area (SFHA).*

5.6-5 Impacts related to off-site improvements associated with removal of proposed project site from a FEMA SFHA.

Implementation of Mitigation Measure 5.6-4, which would result in the removal of the site from an SFHA prior to development, may result in physical effects on the environment. Potential means for removing the project site from a SFHA may include, but are not limited to, the following:

- Hydrology analysis that demonstrates that flows from Morrison Creek would not flood the project site (e.g., validation that the volume of water expected within Morrison Creek during an 100-year storm event would not be sufficient to reach the project site);
- Eliminate or control connections between mined areas and Morrison Creek (i.e., closure of tunnels);
- Control flows of Morrison Creek upstream during storm events in order to eliminate over-topping and potential bank failure;
- Construction of levees and/or other engineering methods deemed appropriate to meet flood protection standards; and/or
- Certify the newly constructed channel sections along the Morrison Creek levee.

Construction related to new levees or levee improvements could require substantial off-site ground disturbing activities within Sacramento County. Such ground disturbing activities could potentially result in environmental impacts such as the following: air quality impacts related to fugitive dust emissions, exhaust emissions from heavy-duty equipment and vehicles, and objectionable odors from diesel-fueled equipment and vehicles; biological impacts related to effects on species or habitats in the area and

compliance with local plans and ordinances; noise impacts related to ground vibration and exposure of people to substantial noise levels from equipment; erosion and stormwater runoff; and/or disturbance or destruction of previously unknown cultural resources. Similar potential impacts could result from closure of the tunnel connections between mines areas and Morrison Creek, as well as various other engineering methods for flood protection. Consequently, removal of the project site from a FEMA SFHA could result in adverse physical affects to the environment. Therefore, the required off-site improvements within Sacramento County associated with removal of the proposed project site from a FEMA SFHA would potentially result in **significant** environmental impacts.

Mitigation Measure(s)

The specific projects required in order to remove the site from a FEMA SFHA have not been identified at this time. Therefore, certainty cannot be given that the environmental effects of such projects would be less-than-significant. As a result, the impact would remain *significant and unavoidable*.

Cumulative Impacts and Mitigation Measures

5.6-6 Long-term increases in peak stormwater runoff flows from the proposed project in combination with existing and future developments in the Sacramento area.

The addition of impervious surfaces to the project site would increase peak stormwater runoff rates and volumes both on-site and downstream of the site. However, as discussed above, the drainage analysis indicates that the proposed design of the on-site drainage system incorporating LID/Hydromodification facilities combined with the off-site retention basin provides runoff reduction and the required retention to effectively convey flows of all major storm events, while concurrently meeting goals of water quality enhancement and providing flood safety. Therefore, the drainage facilities would be able to accommodate the increased flows resulting from buildout of the proposed project in conjunction with development of the areas surrounding the project site. In addition, similar to the proposed project, other projects would be required to provide the necessary on-site drainage infrastructure; and contribute, through the payment of development fees and applicable assessments, the funding of off-site infrastructure. Therefore, a **less than significant** cumulative impact would result from implementation of the proposed project.

Mitigation Measure(s)

None required.

Endnotes

- ¹ City of Sacramento. *Sacramento 2030 General Plan*. March 2009.
- ² City of Sacramento. *Sacramento 2030 General Plan Draft Master EIR*. March 2009.
- ³ Wood Rogers. *Drainage Report, Aspen 1, City of Sacramento, California*. March 2012.
- ⁴ Sacramento County. *Sacramento County General Plan*. December 1993.
- ⁵ U.S. Department of Homeland Security, FEMA. Letter from Kathleen Schaefer, Engineer, Risk Analysis Branch. May 2, 2012.
- ⁶ County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova. *Stormwater Quality Improvement Plan (SQIP)*. November 2009.

5.7 NOISE AND VIBRATION

5.7

NOISE AND VIBRATION

5.7.0 INTRODUCTION

The Noise and Vibration chapter of the EIR describes the existing noise environment in the project vicinity, and identifies potential impacts and mitigation measures related to the conversion and operation of the Aspen 1-New Brighton project (proposed project). In addition, the Noise chapter describes the potential noise impacts due to construction. 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 *Environmental Noise Assessment* prepared by Bollard Acoustical Consultants (See Appendix N),¹ the cumulative noise memorandum prepared by Bollard Acoustical Consultants (See Appendix O),² the *Sacramento 2030 General Plan*,³ the *Sacramento 2030 General Plan Master EIR (MEIR)*,⁴ and the *City of Sacramento Noise Control Ordinance*.⁵

5.7.1 EXISTING ENVIRONMENTAL SETTING

Acoustical and Vibration Terminology

Noise is simply described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Discussing sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel (dB) scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference, defined as 0 dB. Other sound pressures are compared to the reference pressure and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. There is a strong correlation between the way humans perceive sound and A-weighted sound levels. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment for community exposures. All sound levels expressed as dB in this section are A-weighted sound levels, unless noted otherwise.

Community noise is commonly described in terms of the “ambient” noise level, which is defined as the all encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptors, day-night average level (L_{dn}) and the community noise equivalent level (CNEL), and shows very good correlation with community response to noise for the average person. The median noise level descriptor, denoted L_{50} , represents the noise level which is exceeded 50 percent of the hour. In other words, half of the hour ambient conditions are higher than the L_{50} and the other half are lower than the L_{50} .

The L_{dn} is based upon the average noise level over a 24-hour day, with a +10 dB weighting applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. Where short-term noise sources are an issue, noise impacts may be assessed in terms of maximum noise levels, hourly averages, or other statistical descriptors.

Another common descriptor is the CNEL. The CNEL is similar to the L_{dn} , except it has an additional weighting factor. Both average noise energy over a 24-hour period. The CNEL applies a +5 dB weighting to events that occur between 7:00 p.m. and 10:00 p.m., in addition to the +10 dB weighting between 10:00 p.m. and 7:00 a.m. associated with L_{dn} . Typically, the CNEL and L_{dn} result in similar results for the same noise events, with the CNEL sometimes resulting in reporting a 1 dB increase compared to the L_{dn} to account for noise events between 7 and 10 p.m. that have the additional weighting factor.

Effects of Noise on People

The perceived loudness of sounds and corresponding reactions to noise are dependent upon many factors, including sound pressure level, duration of intrusive sound, frequency of occurrence, time of occurrence, and frequency content. As mentioned above; however, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighting network. Table 5.7-1 shows examples of noise levels for several common noise sources and environments.

Table 5.7-1 Typical A-Weighted Sound Levels of Common Noise Sources	
Decibels	Description
120	Jet Aircraft at 100 Feet/Threshold of Pain
110	Riveting Machine at Operator's Position
100	Shotgun at 200 Feet
90	Bulldozer at 50 Feet
80	Diesel Locomotive at 300 Feet
70	Commercial Jet Aircraft Interior during Flight
60	Normal Conversation Speech at 5-10 Feet
50	Open Office Background Level
40	Background Level within a Residence
30	Soft Whisper at 2 Feet
20	Interior of Recording Studio

Source: Bollard Acoustical Consultants. Environmental Noise Assessment. November 9, 2010.

It is generally recognized that an increase of at least 3 dB of similar sources is usually required before most people will perceive a change in noise levels in the community, and an increase of 5 dB is required before the change will be clearly noticeable. A common practice is to assume that a minimally perceptible increase of 3 dB represents a significant increase in ambient noise levels. This approach is very conservative, however, when applied to noise conditions substantially below levels deemed acceptable in general plan noise elements or in noise ordinances.

Perception of Changes in Noise Levels

Table 5.7-2 is based upon recommendations made in August 1992 by FICON to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these criteria have been applied to other sources of noise similarly described in terms of cumulative noise exposure metrics such as the L_{dn} .

Ambient Noise Level Without Project, L_{dn}	Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: FICON, 1997.

According to Table 5.7-2, an increase in noise from similar sources of 5 dB or more would be noticeable where the ambient level is less than 60 dB. Where the ambient level is between 60 and 65 dB, an increase in noise of 3 dB or more would be noticeable, and an increase of 1.5 dB or more would be noticeable where the ambient noise level exceeds 65 dB L_{dn} . The rationale for the Table 5.7-2 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

Effects of Vibration on People and Structures

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating. Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (ppv) in inches per second (in/sec).

Future Noise Sources Affecting the Project Site

To ensure that noise mitigation measures developed for the project will continue to be effective in the future, noise impacts are typically evaluated at a point in time 20 years in the future. Noise sources that may be present 20 years into the future are evaluated in this analysis.

Noise sources that will *almost certainly* be present 20 years into the future will include traffic on South Watt Avenue and Jackson Road, future commercial activities at the northeast corner of the project, intermittent aircraft operations associated with Mather Airport, and traffic on internal roadways within the Aspen 1-New Brighton development.

Noise sources that will *likely* be present 20 years into the future include activities the commercial and industrial area to the southwest (although some specific uses within that area will likely change), intermittent agricultural operations at the proposed Urban Farm area in the southwest, and operations of the transfer station to the west.

Noise sources that *may* be present 20 years into the future include activities the existing Teichert Perkins plant, including ongoing operation of the conveyor belt system located on the project site.

Noise sources that will *not likely* affect the Aspen 1-New Brighton development 20 years into the future include activities at the existing L and D Landfill to the south. The L and D Landfill Closure Plan calls for closure of landfill activities on October 31, 2023.

Existing Noise Sources Affecting the Project Site

The existing ambient noise environment in the project area is defined primarily by traffic on South Watt Avenue and Jackson Road, commercial/light industrial activities, including noise from the Florin Perkins Landfill to the southwest, L and D Landfill operations to the south, and operations at the Teichert Perkins plant to the north. Existing and proposed operations at the transfer station to the west, and intermittent aircraft over-flights associated with Mather Airport also affect the project site, but to a lesser extent. The project site is not appreciably affected by noise generated within the existing business area bordering the southeast corner of the project (along South Watt Avenue).

An existing aggregate conveyor belt system is located on the project site at the position indicated on Figure 5.7-1. Noise from this equipment, which is associated with operations at the existing Teichert Perkins plant to the north, contributes to the ambient noise environment on the portions of the project site located in close proximity to the conveyor belt.

Existing Ambient Noise

To generally quantify the existing ambient noise environment in the project area, long-term (continuous) ambient noise level measurements were conducted at six locations around the project perimeter in March and April of 2009. The results of the long-term ambient noise measurement surveys are summarized in Table 5.7-3. The Table 5.7-3 data indicate that existing noise levels at the project site vary, depending on location of the noise monitoring site to the major project area noise sources. The locations of the continuous noise monitoring sites are shown on Figure 5.7-2. In addition to the long-term surveys, short-term noise monitoring was conducted at six locations on the project site (See Figure 5.7-2). These short term sites were used to assist in the identification of noise levels for specific noise sources (i.e., existing conveyor belt operation and Teichert Perkins plant operations).

Table 5.7-3					
Measured Ambient Noise Levels					
Aspen 1-New Brighton Project Site – City of Sacramento					
Site¹	Daytime (7 a.m.-10p.m.)		Nighttime (10 p.m.-7 a.m.)		L_{dn}
	L₅₀	L_{max}	L₅₀	L_{max}	
1	43-56	57-73	46-56	56-68	57
2	42-56	56-70	45-55	56-67	57
3	44-60	59-81	42-59	53-68	60
4	45-51	61-76	45-54	59-66	58
5	60-67	72-83	48-66	70-79	69
6	49-57	63-77	41-57	61-72	60

¹ See Figure 5.7-2 for noise measurement locations.

Source: Bollard Acoustical Consultants, Environmental Noise Assessment, November 9, 2010.

**Figure 5.7-1
Project Vicinity**

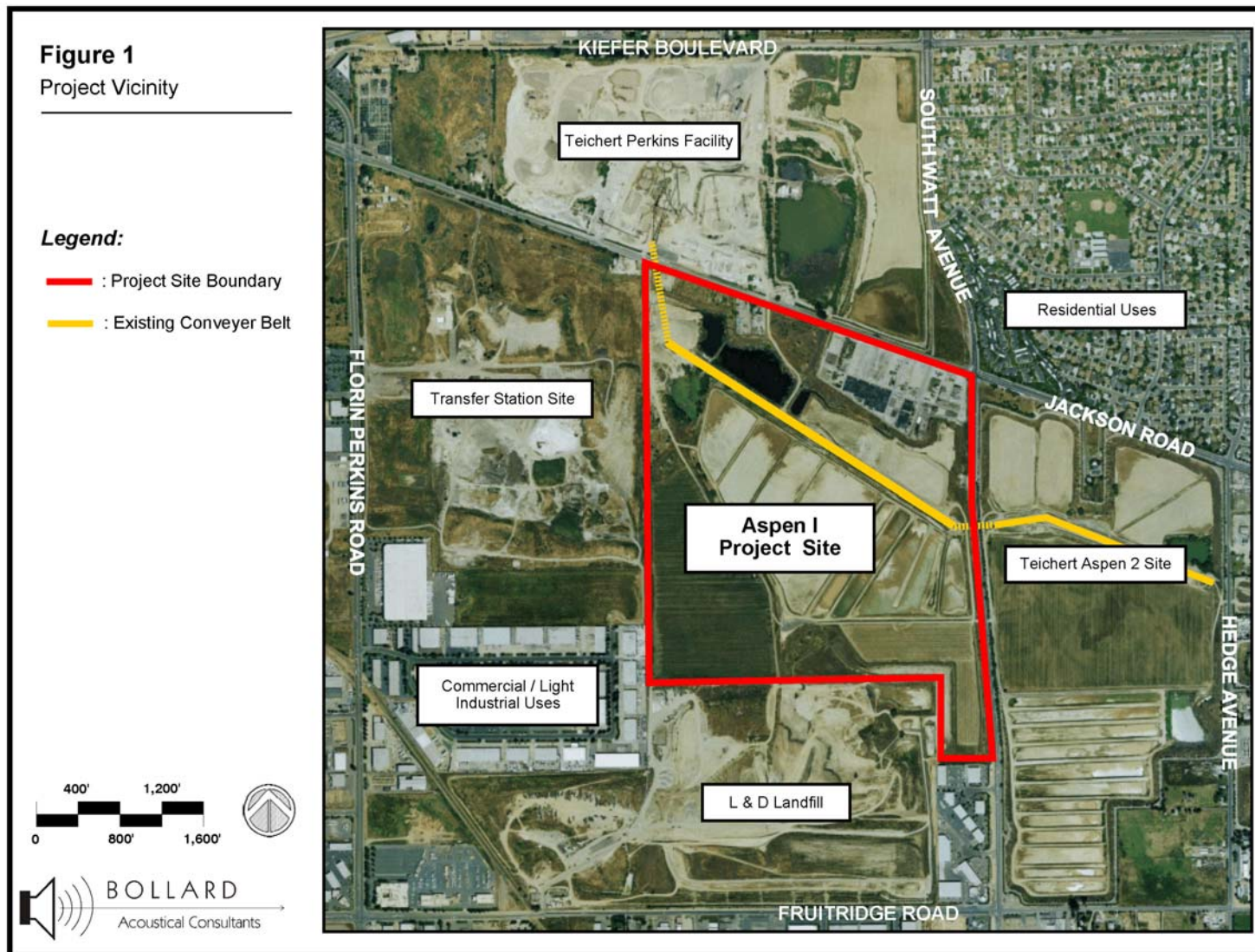
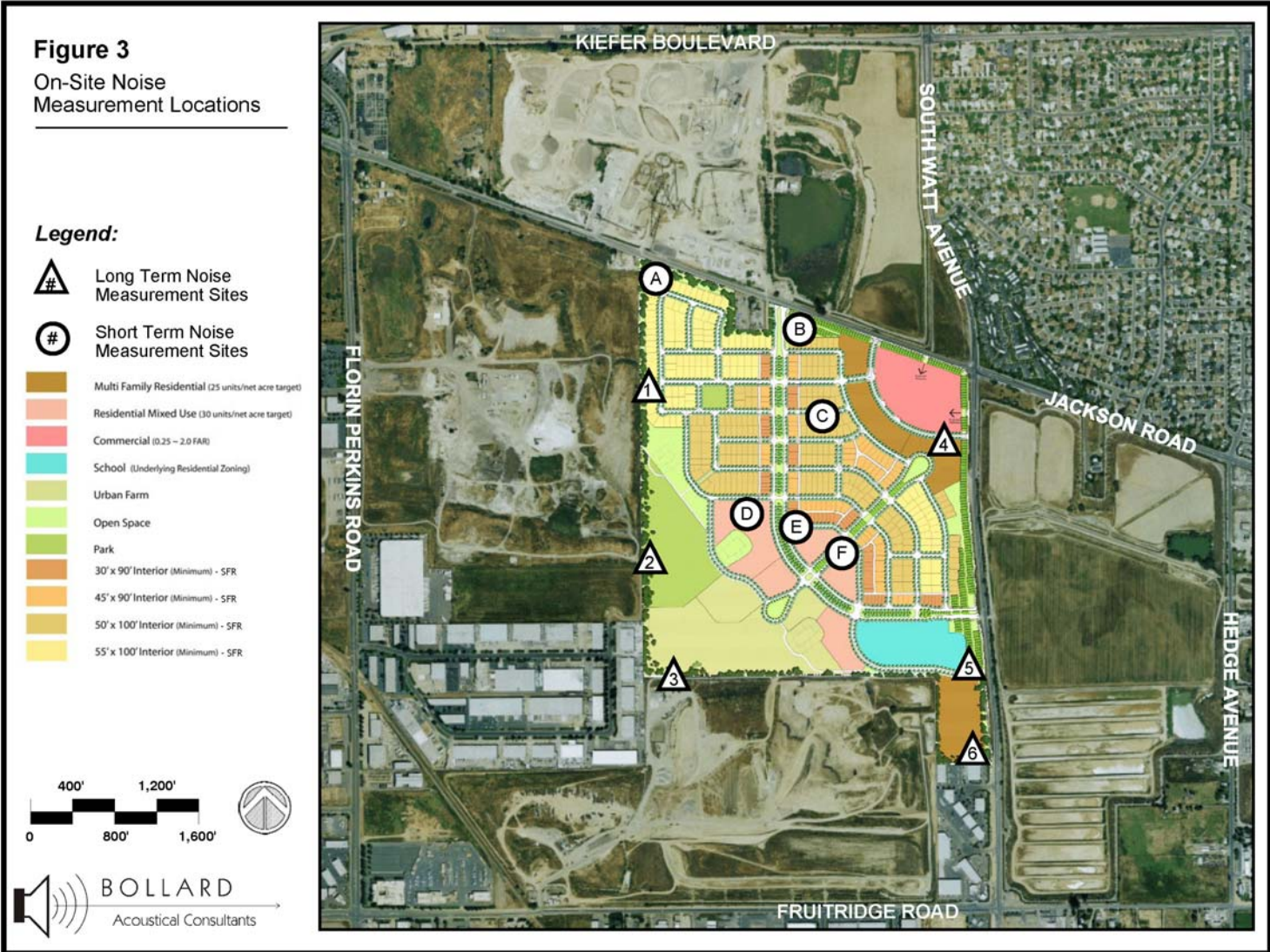


Figure 5.7-2
On-Site Noise Measurement Locations



Existing Traffic Noise

Average daily traffic (ADT) volumes were obtained from the project traffic consultant (DKS Associates). Truck percentages, the Day/Night traffic split, and vehicle speeds were obtained from BAC field observations, traffic counts, and noise measurement results. The FHWA Model inputs and results are contained in Appendices D through F of the environmental noise assessment (See Appendix N of this Draft EIR). Table 5.7-4 shows the predicted existing traffic noise levels at a reference distance of 100 feet from the roadway centerlines, as well as the distances to the unshielded L_{dn} contours. It should be emphasized that the Table 5.7-4 data do not include any shielding that would be present from intervening topography following completion of site grading.

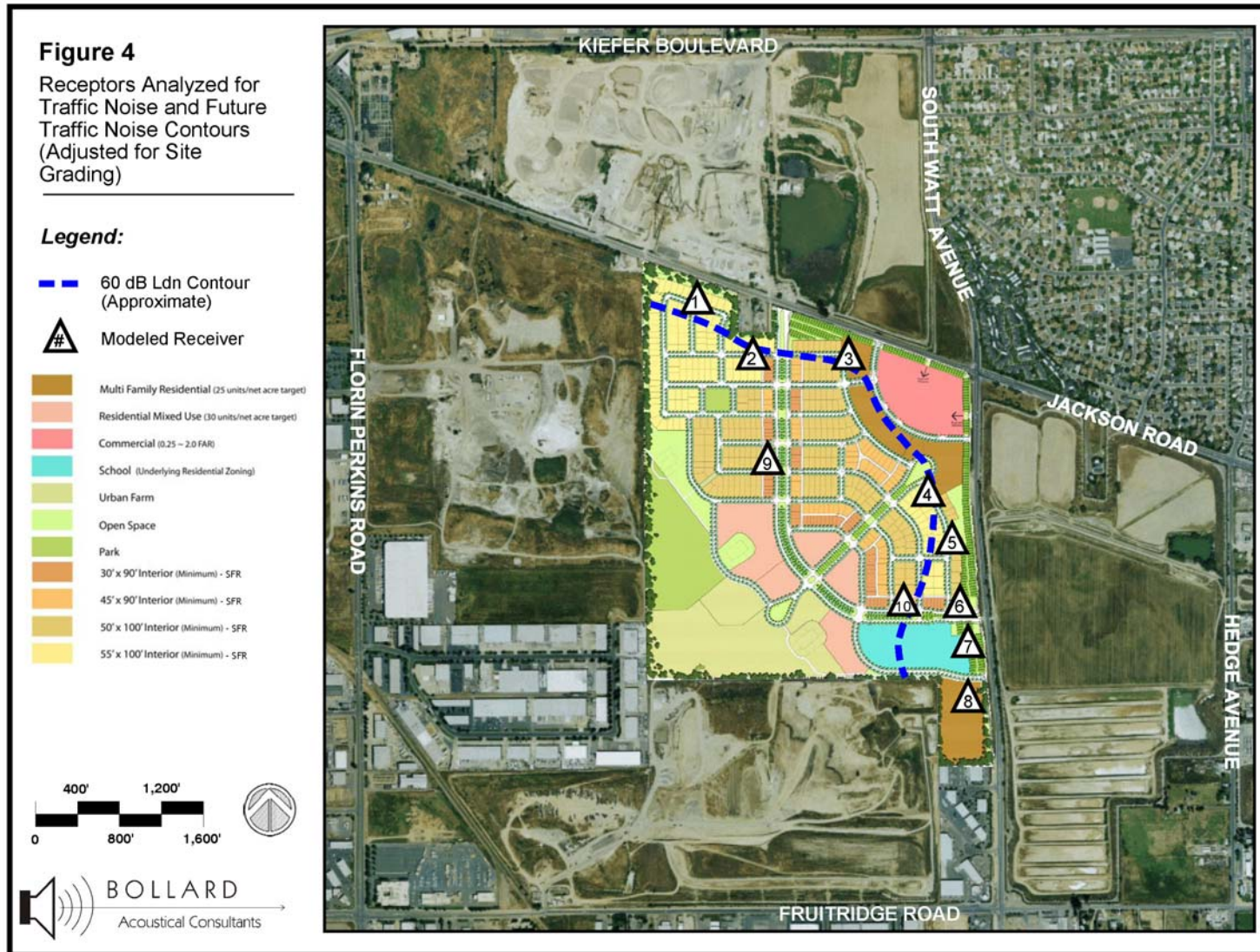
Table 5.7-4 Existing and Predicted Future Traffic Noise Levels Aspen 1-New Brighton Project, Sacramento California					
Roadway	L_{dn} @ 100 Feet		Distance to Unshielded Future Plus Project L_{dn} Contours (feet)		
	Existing	Future Plus Project	60 dB	65 dB	70 dB
Jackson Road	67	74	822	382	177
South Watt	71	75	971	451	209
Internal Parkway	N/A	61	113	52	24
Note: These levels have not been adjusted to account for site topography, which reduces both the noise level and distances to contours dramatically in locations that will be substantially depressed relative to the roadways.					
Source: <i>Bollard Acoustical Consultants, Environmental Noise Assessment, April 14, 2011.</i>					

As noted above, the Table 5.7-4 data do not account for the considerable topographic shielding that is present on the site currently and would be present on the project site following completion of site grading. Specifically, the proposed residential lots located nearest to Jackson Road would be depressed below Jackson Road by approximately 10 to 17 feet, with the proposed residential lots nearest to South Watt Avenue ranging from approximately two to 20 feet below that roadway elevation.

Analysis of the ambient noise measurement data revealed that existing site topographic shielding currently provides approximately 7 dB of traffic noise reduction at the portions of the project site that are depressed relative to either South Watt Avenue or Jackson Road. The noise consultant used that data, in conjunction with proposed site grading plans and the FHWA Noise Barrier Analysis Model, to compute the degree of noise reduction provided by topographic shielding that can be expected following site grading. That analysis was conducted at receptors identified as being representative of groups of residences proposed within the Aspen 1-New Brighton project.

Three receptors were selected to model representative locations along Jackson Road, five receptors were modeled along South Watt Avenue, and two receptors were modeled along the interior parkway. The receptor locations are identified on Figure 5.7-3. The results of the topographic shielding analysis for those 10 receptors are provided in Table 5.7-5 for cumulative plus project conditions. Based on those results, the approximate locations of the future 60 dB L_{dn} traffic noise contours were plotted on Figure 5.7-3. The Table 5.7-5 data and Figure 5.7-3 contours represent shielding provided by the elevation differences between the roadways and receivers.

Figure 5.7-3
Receptors Analyzed for Traffic Noise and Future Traffic Noise Contours (Adjusted for Site Grading)



**Table 5.7-5
 Predicted Future Traffic Noise Levels at Representative
 Residential Uses after Accounting for Site Grading**

Receptor	Description	Future L _{dn} without Shielding	Topographic Shielding	Future L _{dn} with Topographic Shielding
1	Nearest residential to Jackson	70	-6	64
2	Second row of residences ¹	65	-5	60
3	High-density residential in northeast corner	70	-7	63
4	Residential adjacent to park	69	-8	61
5	Residential adjacent to tunnel	72	-6	66
6	Residential adjacent to parkway	70	-3	67
7	Future school site	73	0	73 ²
8	High-density residential south of parkway	73	0	73 ²
9	Residential along parkway – south of Jackson	63	-3	60
10	Residential along parkway – west of Watt	60	-3	57

¹ Receptor 2 represents residences which are set back one block from the first-row residences and partially shielded from traffic noise by those residences.

² Locations 7 & 8 would be exposed to higher traffic noise levels due to reduced topographic shielding relative to other areas of the development site.

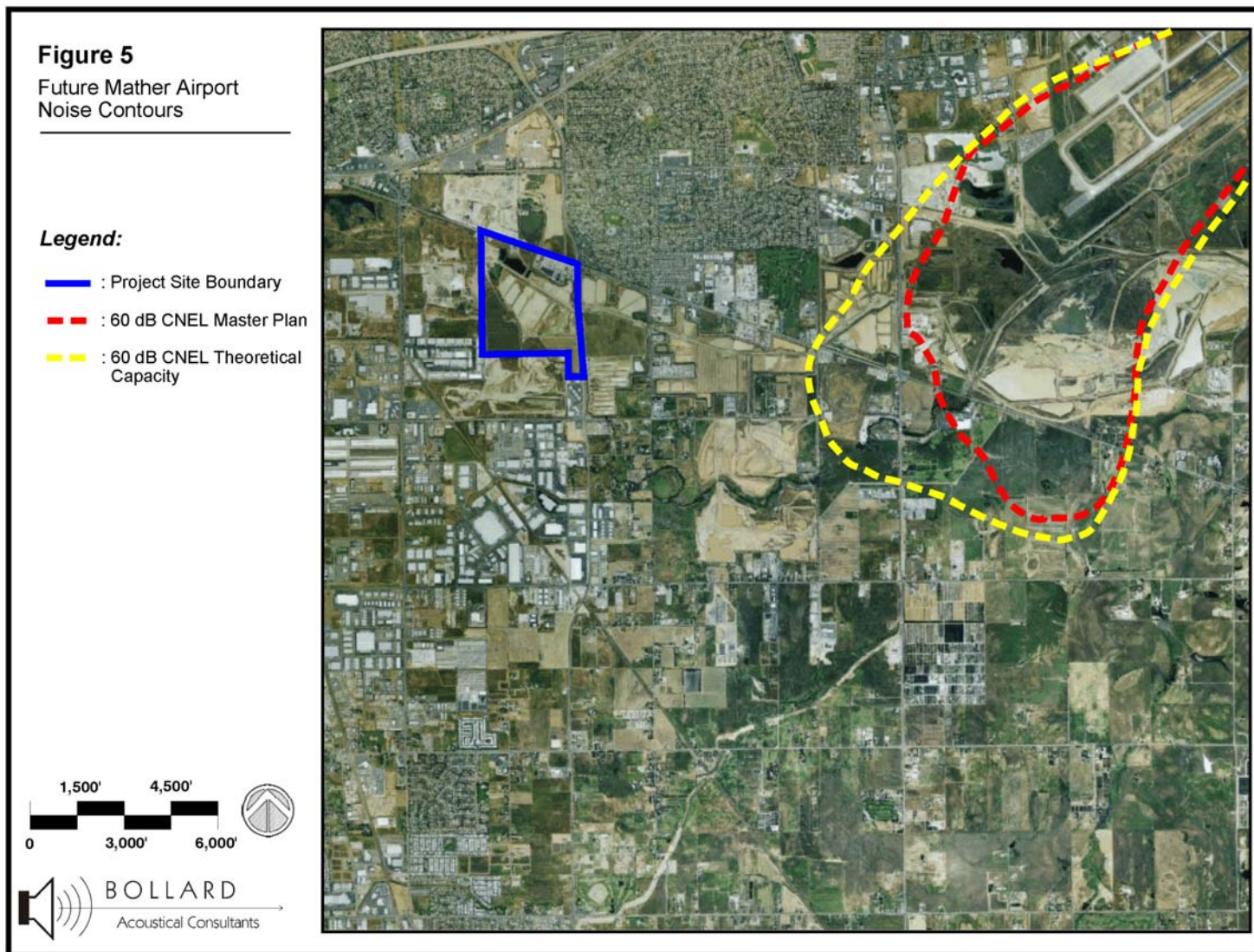
Source: *Bollard Acoustical Consultants, Environmental Noise Assessment, April 14, 2011.*

The Table 5.7-5 data indicate that, due to the considerable acoustic shielding that would result from site grading, the proposed residential areas would be exposed to future traffic noise levels below the 70 dB L_{dn} standard applicable to infill developments. However, portions of the proposed high-density residential development sites in the southeast quadrant of the project site are predicted to exceed 70 dB L_{dn}, as are portions of the proposed school site. In addition, elevated second-floor facades of the residential uses proposed nearest to either Jackson Road or South Watt Avenue would not benefit from the same degree of shielding as first-floor outdoor activity areas. Within second-floor bedrooms of those residences, future traffic noise levels could potentially exceed the City of Sacramento 45 dB L_{dn} interior noise level standard. As a result, additional analysis of proposed exterior and interior noise mitigation measures is required to ensure that sufficient noise attenuation is included in the project design to achieve satisfaction with applicable City of Sacramento noise standards.

Aircraft Noise

Mather Airport is located approximately 15,000 feet (three miles) east of the project site, as indicated on Figure 5.7-4. Figure 5.7-4 also shows the locations of the future 60 dB CNEL contours for Mather Airport (Master Plan and Theoretical Capacity contours). Although aircraft operations associated with Mather Airport can be audible from the project site, due to the considerable distance to that airport, the noise contours shown in Figure 5.7-4 indicate that the project site is located well beyond the future 60 dB CNEL noise contours.

Figure 5.7-4
Future Mather Airport Noise Contours



As a result, the project site is not considered to be adversely affected by noise from Mather Airport operations and no project-specific noise mitigation measures would be warranted for this noise source.

Florin-Perkins Material Recovery Facility/Transfer Station Noise

The Florin-Perkins Material Recovery Facility/Transfer Station (transfer station), is located on the east side of Florin-Perkins Road, south of Jackson Road, immediately west of the Aspen 1-New Brighton project site. Figure 5.7-5 shows the location of the transfer station relative to the Aspen 1-New Brighton project site, and that operations at that facility would occur at least 1,000 feet from the project property boundary.

According to the Initial Study (IS) prepared for this facility by Sacramento County Department of Environmental Review and Assessment (DERA) in 2008, the site has been used as a material recovery facility and transfer station in the past but is not currently in use. The IS was prepared because an application was received to reopen this facility to allow for the operation of a Large Volume Transfer Station and a Materials Recovery Facility at this location. The information contained in that IS was used to prepare the following evaluation of potential noise generation at the Aspen 1-New Brighton project site.

The primary source of continuous, or non-intermittent, noise would reportedly be from processing operations. It was estimated that these operations would produce sustained noise levels of up to 70 dB L_{eq} in the processing area of the facility. The processing area will be approximately 50 feet away from the tipping access area, where the noise level is expected to be attenuated to approximately 60 dB for the transfer station users. A sustained level of 70 dB L_{eq} at a reference distance of 50 feet from the processing area would be attenuated to approximately 42 dB L_{eq} at the Western boundary of the Aspen 1-New Brighton site. Median (L_{50}) noise levels are always lower than average (L_{eq}) values because the loudest half of the hour is effectively filtered, and the logarithmic nature of the decibel scale causes that loudest half of the hour to elevate average levels above median levels. Therefore, it is likely that Median noise levels associated with processing area activities would be less than 40 dB L_{50} at the Aspen 1-New Brighton project site.

The IS reported that sources of transient (non-continuous) noise would include recycled material transfer to containers (such as glass and metal transfer), back-up horns on trucks and facility operations equipment, and engine noise (during acceleration) from operations equipment. The IS indicated that these sources could produce maximum noise levels in the range of 85 to 90 dB L_{max} in close proximity to those sources. Assuming those levels were reported for a reference distance of 25 feet, maximum noise levels received at the Aspen 1-New Brighton project site would be attenuated to approximately 50 to 55 dB L_{max} . Because predicted median (L_{50}) and maximum (L_{max}) noise levels associated with the transfer station would be below both daytime and nighttime standards of the City of Sacramento Noise Ordinance, no additional noise mitigation measures would be warranted for this noise source.

Teichert Perkins Plant Noise

The Teichert Perkins plant is located on the north side of Jackson Road, as indicated in Figure 5.7-1. The facility includes a ready-mix plant, a rock processing plant, two asphalt plants, stockpiles of processed aggregates, and associated facilities. An aerial photograph of the Teichert Perkins plant is shown in Figure 5.7-6. Operations at the Teichert Perkins plant vary depending on demand for aggregate products.

Figure 5.7-5
Florin-Perkins Material Recovery Facility/Transfer Station Location

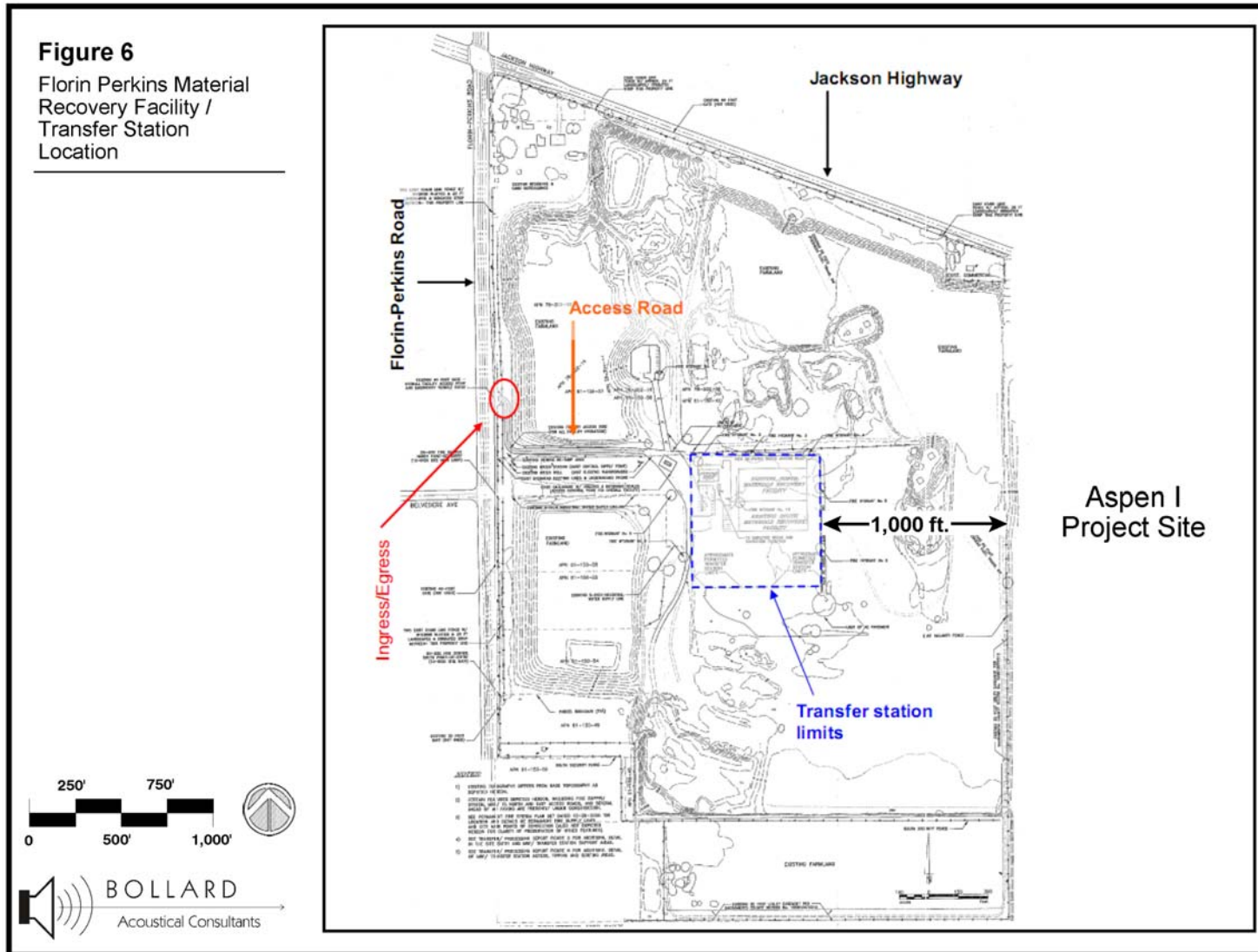
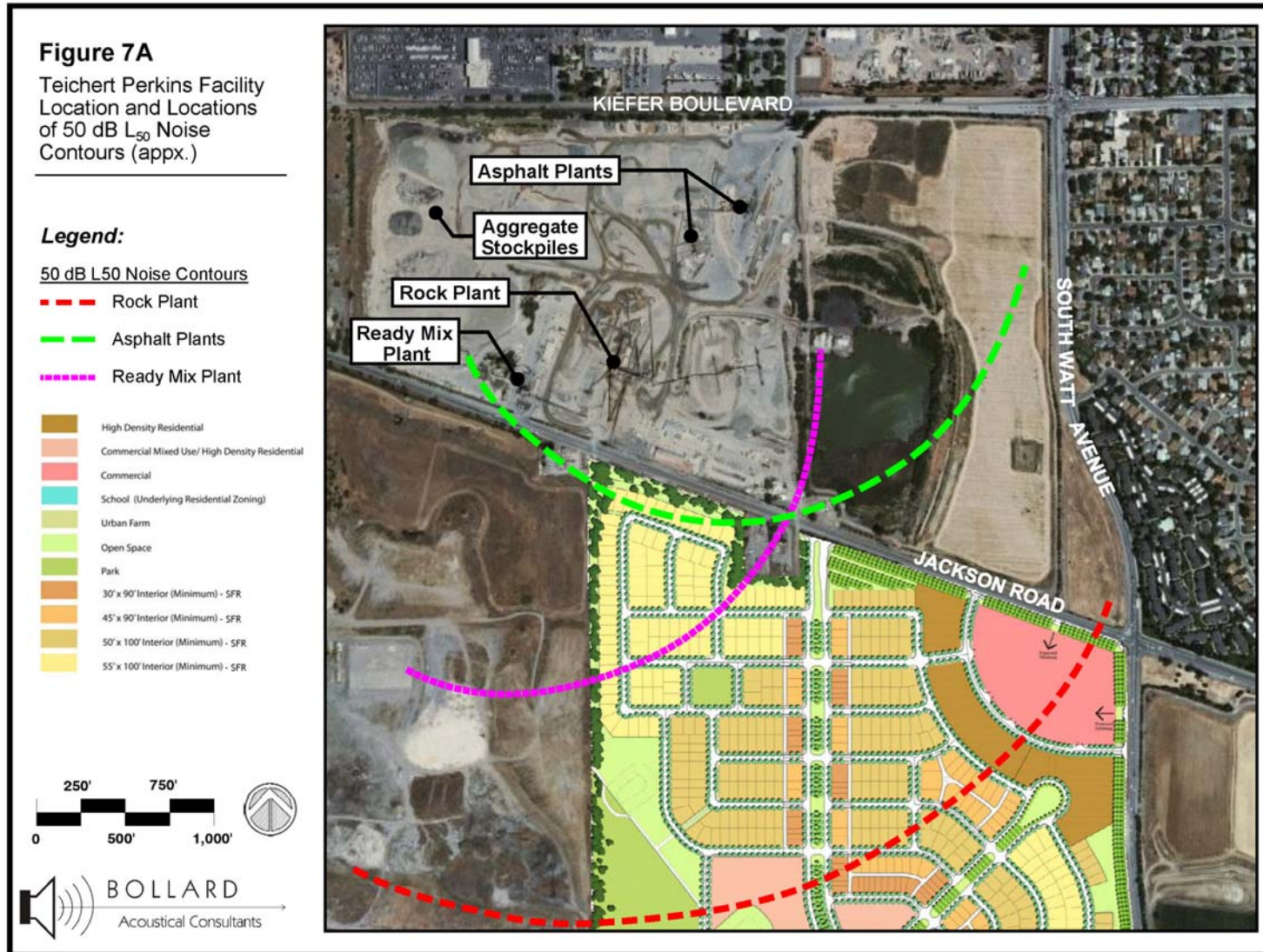


Figure 5.7-6
Teichert Perkins Plant Location and Locations of 50 dB L₅₀ Noise Contours



Although the facility is permitted to operate 24 hours per day, historic/typical operations at the various components of the facility have been reported as follows:

Rock Plant

- 4 a.m. to 3:30 p.m. Monday through Friday;
- Maintenance Shift is 10:30 p.m. to 4:30 a.m.;
- Winter shut-down for repairs is typically December through March;
- Last 24-hour operations were in Fall 2005; and
- Current surge pile maintained at approximately two weeks of production capacity.

Asphalt Plants

- 6 a.m. to 4 p.m. normally, up to seven days a week as needed;
- 24-hour per day operations permitted when required;
- 24-hour per day operations occurring currently; and
- Winter shut-down for repairs is typically December through March.

Ready-Mix Plant

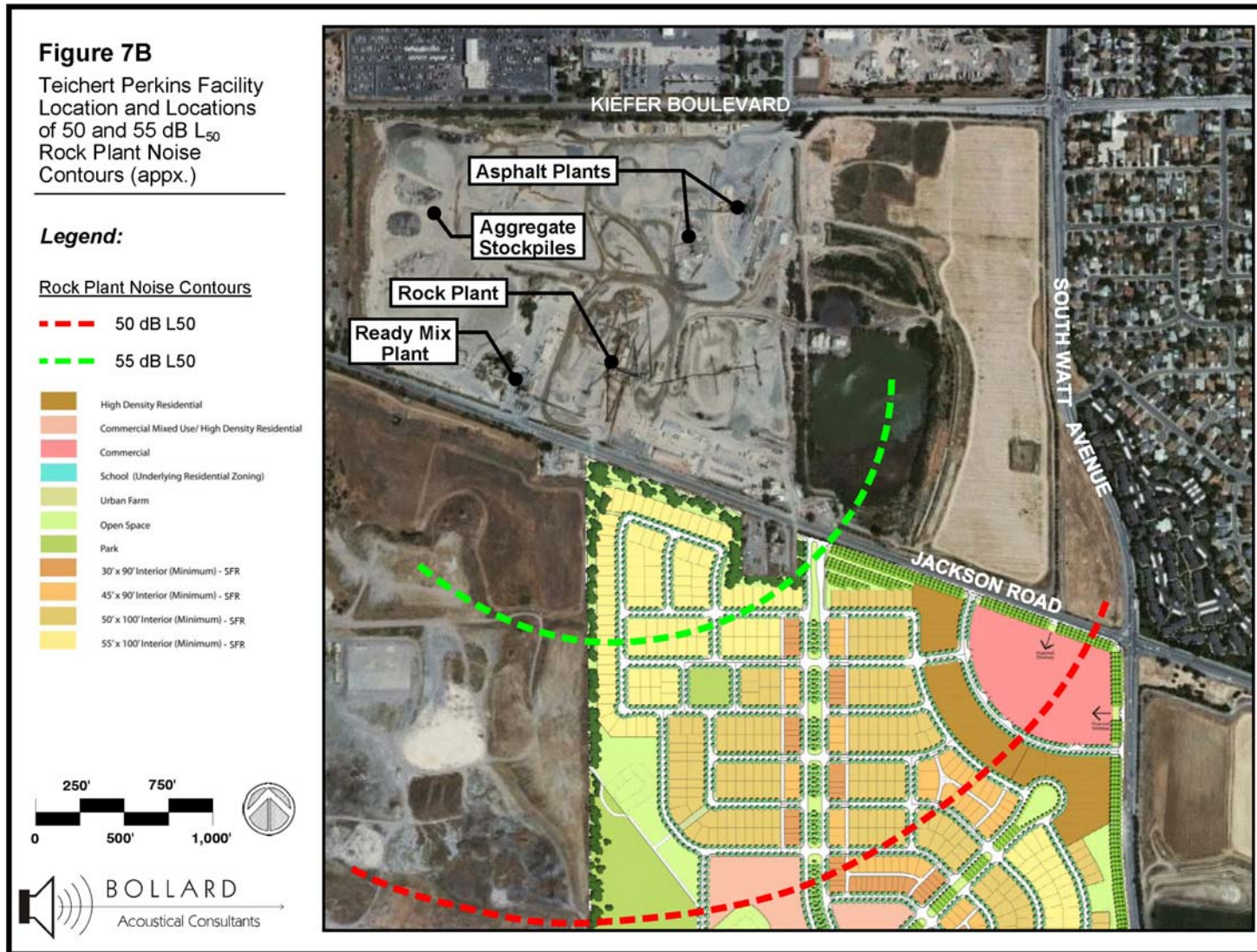
- 6:30 a.m. to 4:30 p.m. normally, up to 7 days a week as needed;
- 24-hour per day operations permitted when required; and
- Winter shut-down for repairs is typically December through March.

Because the Teichert Perkins plant is permitted to operate 24 hours per day, this report addresses the potential for 24-hour operations at the Teichert Perkins plant to adversely affect proposed noise-sensitive land uses on the Aspen 1-New Brighton project site.

To quantify the noise emissions of the Perkins facility, BAC conducted noise level measurements at 10 locations on the Perkins facility site on May 27, 2009. The Teichert Perkins plant equipment was operating normally during the noise measurement surveys. The measurement results were used with the supplemental on-site short-term measurement data to identify the approximate locations of the 50 and 55 dB L_{50} noise contours for the most significant noise sources present at the Perkins facility. Those particular contours were selected for this analysis since the 55 and 50 dB L_{50} values represent the City of Sacramento Noise Ordinance daytime and nighttime noise level standards, respectively.

Figure 5.7-6 shows the approximate locations of the 50 dB L_{50} noise standards for the various components of the Teichert Perkins plant, including the rock plant, asphalt plants, and ready-mix plant. Figure 5.7-7 shows just the 50 and 55 dB L_{50} noise contours for the rock plant, as that is the most significant noise source within the Perkins facility affecting the proposed development. The Figure 5.7-6 and 5.7-7 contours should be considered approximate as there are several factors which affect the transmission of sound from the Perkins facility to the Aspen 1-New Brighton project site. Those factors include the operating parameters of the Teichert Perkins equipment, atmospheric conditions (temperature, wind, relative humidity, gradients, etc.), and intervening topography.

Figure 5.7-7
Teichert Perkins Plant Location and Locations of 50 and 55 dB L₅₀ Rock Plant Noise Contours



Because portions of the Aspen 1-New Brighton site are substantially depressed relative to the elevation of the Perkins Facility, some of the Teichert Perkins equipment is partially or completely shielded from view at the project site, thereby resulting in a reduction in noise. At other locations, however, elevated equipment (such as elevated screens at the Rock Plant), is still visible even in the depressed portions of the site. Although an effort was made to account for as many factors associated with the propagation of sound from the Teichert Perkins plant to the Aspen 1-New Brighton site, the contours shown on Figures 5.7-6 and 5.7-7 should, nonetheless, be considered approximate.

The noise contours shown on Figures 5.7-6 and 5.7-7 extend by varying amounts into the Aspen 1-New Brighton project site. Those contours specifically indicate that the project area is not appreciably affected by noise from asphalt plant operation at the Teichert Perkins plant, but that it is significantly affected by noise from the Rock Plant equipment. Because noise from the rock plant could exceed the City of Sacramento 55 and 50 dB L_{50} daytime and nighttime noise level standard, respectively, and noise from the ready-mix plant could exceed the City's nighttime noise standard, consideration of additional noise mitigation measures for these sources will be necessary for any noise sensitive land uses proposed within the 55 and 50 dB L_{50} noise contours identified in Figures 5.7-6 and 5.7-7.

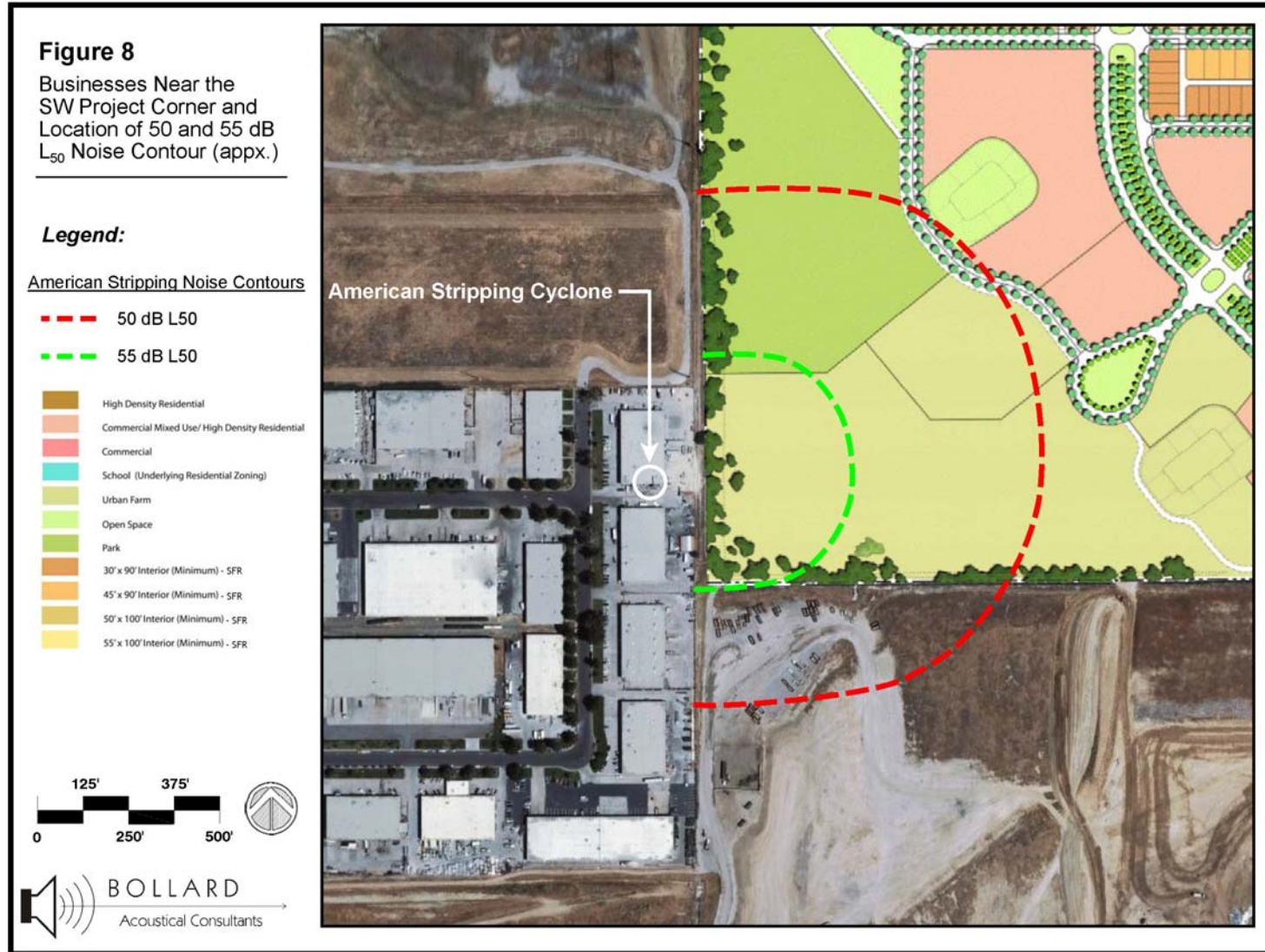
Noise Generated at Commercial and Light-Industrial Uses to the Southwest

As indicated in Figure 5.7-1, commercial and light-industrial land uses exist to the southwest. Specific businesses located in this area include, but are not limited to, Kearney's Painting and Collision Repair, Ultimate Linings (spray on truck bed linings), Simas Woodworking, American Stripping, SMI Transmissions, Aramark, and Elevator Controls. During BAC field surveys, it was noted that some of those uses generate clearly audible noise levels at the Aspen 1-New Brighton project site, and that noise generated by what appears to be a cyclone at American Stripping was particularly elevated.

Continuous noise measurement Site 3 (See Figure 5.7-2) was located closest to the existing businesses in question. Appendix C-3 of the noise analysis (See Appendix N of this Draft EIR) indicates that, between the hours of 6:00 a.m. and 5:00 p.m., a marked increase in noise was noted. This is believed to be due, for the most part, to the cyclone at American Stripping. Using that noise level data, the approximate locations of the 55 and 50 dB L_{50} noise contours were plotted for these businesses, and those noise contours are provided in Figure 5.7-8. Because the noise generation of the cyclone is steady-state and not intermittent, it is subject to the more restrictive L_{50} standards, rather than the higher L_{max} standards.

The noise contours shown on Figure 5.7-8 indicate that the project area is affected by noise generated within this business park. Inspection of the project development plan, however, reveals that the portion of the project site nearest this industrial noise source is proposed for use as a Community Park and urban farm, which are not noise-sensitive. As a result, adverse noise impacts were not identified from the existing noise sources located in the light industrial area adjacent to the southwest corner of the Aspen 1-New Brighton project site.

Figure 5.7-8
Businesses near the Southwest Corner of the Project Site and Location of 50 and 55 dB L₅₀ Noise Contour



5.7.2 REGULATORY BACKGROUND

In order to limit population exposure to physically and/or psychologically damaging noise levels, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. The following provides a general overview of the existing regulations established by the State and the City.

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, dormitories, 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 L_{dn} or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} 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 levels are 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

Sacramento 2030 General Plan

According to the *Sacramento 2030 General Plan*, the normally acceptable exterior noise environment for commercial land uses is 65 dB L_{dn} and the normally acceptable exterior noise environment for residential land uses is 60 to 70 dB L_{dn} . In addition, the General Plan establishes 45 dB L_{dn} as an acceptable interior noise environment for residential uses. In instances where attainment of the normally acceptable exterior noise level is not possible with best available noise reduction measures, the General Plan allows an exterior noise level exceeding the acceptable L_{dn} , up to the conditionally acceptable range, provided that noise level reduction measures have been implemented and that interior noise level standards are achieved.

The following are the *Sacramento 2030 General Plan* goals and policies that specifically relate to noise and vibration.

Environmental Constraints: Noise

Goal EC 3.1 Noise Reduction. Minimize noise impacts on human activity to ensure the health and safety of the community.

Policy EC 3.1.1 Exterior Noise Standards. The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table EC 1 (See Table 5.7-6), to the extent feasible.

Policy EC 3.1.2 Exterior Incremental Noise Standards. The City shall require noise mitigation for all development that increases existing noise levels by more than the allowable increment shown in Table EC 2 (See Table 5.7-7), to the extent feasible.

**Table 5.7-6
 Exterior Noise Compatibility Standards for Various Land Uses**

Land Use Type	Highest Level of Noise Exposure That Is Regarded as “Normally Acceptable” ^a (L _{dn} ^b or CNEL ^c)
Residential – Low Density Single-Family, Duplex, Mobile Homes	60 dBA ^{d,c}
Residential – Multi-Family	65 dBA
Urban Residential Infill ^f and Mixed-Use Projects ^g	70 dBA
Transient Lodging – Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office buildings – Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

^a 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.”
^b L_{dn} or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.
^c CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.
^d dBA or A-weighted decibel scale is a measurement of noise levels.
^e The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.
^f With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High).
^g All mixed-use projects located anywhere in the City of Sacramento.

Source: Governor’s Office of Planning and Research, State of California General Plan Guidelines 2003, October 2003.

**Table 5.7-7
 Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)**

Residences and Buildings Where People Normally Sleep ^a		Institutional Land Uses with Primarily Daytime and Evening Uses ^b	
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

^a This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
^b This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, mediation, and concentration on reading material.

Source: Federal Transit Administration, *Transit Noise Impact and Vibration Assessment*, March 2006.

- Policy 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.
- Policy 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 overflights, 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.
- Policy 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.
- Policy EC 3.1.8 Operational Noise. The City shall require mixed-use, commercial, and industrial projects to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded.
- Policy EC 3.1.9 Compatibility with Park and Recreation Uses. The City shall limit the hours of operation for parks and active recreation areas in residential areas to minimize disturbance to residences.
- Policy 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.
- Policy 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.
- Goal EC 3.2 Airport Noise. Minimize exposure to high noise levels in areas of the City affected by Mather, Executive, McClellan, and Sacramento International Airports.
- Policy EC 3.2.1 Land Use Compatibility. The City shall limit residential development within the 65 dBA CNEL airport noise contour,

or in accordance with plans prepared by the Airport Land Use Commission, and shall only approve noise-compatible land uses.

Policy EC 3.2.2 Hazardous Noise Protection. The City shall discourage outdoor activities or uses in areas outside the 70 dBA CNEL airport noise contour where people could be exposed to hazardous noise levels.

City of Sacramento Noise Ordinance

The Sacramento City Code Chapter 8.68 Noise Control sets limits for exterior noise levels on designated residential property and interior noise levels pertaining to multiple dwelling units (See Table 5.7-8).

The ordinance states that exterior noise shall not exceed 55 dB during any cumulative 30-minute period in any hour during the day (7 a.m. to 10 p.m.) and 50 dB during any cumulative 30-minute period in any hour during the night (10 p.m. to 7 a.m.). The ordinance sets somewhat higher noise limits for time intervals of shorter duration; however, noise in residential areas must never exceed 75 dB during the day and 70 dB at night.

Section 8.68.080.E (Exemptions) states that Noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure between the hours of seven a.m. and six p.m., on Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, and between nine a.m. and six p.m. on Sunday; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order. The director of building inspections may permit work to be done during the hours not exempt by this subsection in the case of urgent necessity and in the interest of public health and welfare for a period not to exceed three days.

Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work. It should be noted that the following activities are specifically exempted from the provisions of the City of Sacramento Noise Ordinance:

- School bands, school athletic and school entertainment events. School entertainment events shall not include events sponsored by student organizations.
- Outdoor gatherings, public dances, shows and sporting and entertainment events provided said events are conducted pursuant to a discretionary license or permit by the City or County.
- Activities conducted on parks and public playgrounds, provided such parks and public playgrounds are owned and operated by a public entity.
- Any mechanical device, apparatus or equipment related to or connected with emergency activities or emergency work.

Table 5.7-8	
City of Sacramento Noise Ordinance Standards for Agricultural and Residential Property	
Cumulative Period	Standards (dB) Day (7 a.m.-10 p.m.) / Night (10 p.m.-7 a.m.)
Exterior Noise Standards^{1,3}	
30 minutes/hour	55/50
15 minutes/hour	60/55
5 minutes/hour	65/60
1 minutes/hour	70/65
Never to Exceed	75/70
Interior Noise Standards^{2,4}	
5 minutes/hour	45
1 minutes/hour	50
Any Period of Time	55
<p>¹Noise created over the designated period at any location may not cause the noise levels on a designated agricultural or residential property to exceed these standards.</p> <p>²Noise created over the designated period in an apartment, condominium, townhouse, duplex, or multiple dwelling units may not cause the noise level in a neighboring unit to exceed these standards.</p> <p>³Exterior noise limits must be reduced by 5 dBA for impulsive or simple tone noises, or for noises consisting of speech or music.</p> <p>⁴If the ambient level exceeds the fifth noise level category for exterior noise standards, the maximum ambient noise level shall be the noise limit for the category.</p>	
<p>Source: City of Sacramento Municipal Code Sections 8.68.060 & 8.68.070.</p>	

- Noise sources due to the construction (including excavation), demolition, alteration or repair of any building or structure between the hours of seven a.m. and six p.m., on Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, and between nine a.m. and six p.m. on Sunday; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order. The director of building inspections may permit work to be done during the hours not exempt by this subsection in the case of urgent necessity and in the interest of public health and welfare for a period not to exceed three days. Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work.
- Noise sources associated with agricultural operations provided such operations take place between the hours of six a.m. and eight p.m.; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order.
- Any mechanical device, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during period of adverse weather conditions or when the use of mobile noise sources is necessary for pest control; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order.
- Noise sources associated with maintenance of street trees and residential area property provided said activities take place between the hours of seven a.m. and six p.m.

- Tree and park maintenance activities conducted by the city department of parks and community services; provided, however, that use of portable gasoline-powered blowers within 200 feet of residential property shall comply with the requirements of Section 8.68.150 of this chapter.
- Any activity to the extent provisions of Chapter 65 of Title 42 of the United States Code, and Articles 3 and 3.5 of Chapter 4 of Division 9 of the Public Utilities Code of the state of California preempt local control of noise regulations and land use regulations related to noise control of airports and their surrounding geographical areas, any noise source associated with the construction, development, manufacture, maintenance, testing or operation of any aircraft engine, or of any weapons system or subsystems which are owned, operated or under the jurisdiction of the United States, any other activity to the extent regulation thereof has been preempted by state or federal law or regulation.
- Any noise sources associated with the maintenance and operation of aircraft or airports which are owned or operated by the United States. (Prior code § 66.02.203)

5.7.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

Thresholds of significance are those established by the Title 24 standards, 2030 General Plan Noise Policies, and the City Noise Ordinance. Noise and vibration impacts resulting from the implementation of the proposed project would be considered significant if they cause any of the following results:

- Exterior noise levels at the proposed project exceeding the upper value of the normally acceptable category for various land uses caused by noise level increases due to the project;
- Residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project;
- Construction noise levels not in compliance with the City of Sacramento Noise Ordinance;
- Occupied existing and project residential and commercial areas are exposed to vibration peak particle velocities greater than 0.5 inches per second due to project construction;
- Project or adjacent residential and commercial areas are exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or
- Historic buildings and archaeological sites are exposed to vibration peak particle velocities greater than 0.2 inches per second due to project construction, highway traffic, and rail operations.

Method of Analysis

Existing and Future Noise Environments

A combination of visual and noise level measurement surveys, use of existing acoustical literature, and application of accepted noise prediction methodologies were used to quantify the existing and future ambient noise environments in the project vicinity. A separate discussion of the effects of each of the major noise sources identified above on the project site is included in the following section.

General Ambient Noise Environment within the Project Site

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute. Appendix B of the noise analysis (See Appendix N of this Draft EIR) shows a complete listing of the long-term monitoring results, and Appendix C of the noise analysis shows a graphical representation of the data.

Existing and Future Traffic Noise Levels

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

Project-Specific Impacts and Mitigation Measures

5.7-1 Impacts related to the project resulting in exterior noise levels at the project site that would exceed the upper value of the normally acceptable category for various land uses or residential interior noise levels of 45 dBA L_{dn} or greater caused by traffic noise level increases due to the project.

According to the environmental noise assessment, with implementation of the proposed project, traffic noise levels on Jackson Road and South Watt Avenue could exceed City of Sacramento interior noise standards.

The project has been designed with front-loaded residences proposed along major internal roadways. The benefit of this design is that outdoor activity areas are located further from roadways and those areas are shielded from roadway noise by the residence, which serves as an effective noise barrier. As a result, adverse noise impacts are not identified for residences located adjacent to the internal project roadways.

However, as noted in Table 5.7-5 and as shown in Figure 5.7-3, future traffic on Jackson Road and South Watt Avenue is predicted to generate elevated noise levels at portions of the proposed project site located nearest to those roadways. The potential for adverse noise impacts would be present within second-floor rooms of proposed low-density residences despite extensive shielding of traffic noise by intervening topography at first-floor areas. In addition, the City's 70 dB L_{dn} exterior standard applicable to infill residential uses is predicted to be exceeded at portions of the proposed High-Density residential development at the southeast portion of the project site.

As a result, additional reduction of traffic noise would be required for the two affected areas, and a **potentially significant** impact would result. It should be noted that the project would not result in significant traffic noise level increases at any off-site noise-sensitive areas.

Mitigation Measure(s)

The following mitigation measures would reduce the above impact to a *less than significant* level.

- 5.7-1(a) *All second-floor windows of residences constructed within 250 feet of the centerline of either South Watt Avenue or Jackson Road from which those roadways are visible shall have a minimum Sound Transmission Class Rating of 33.*
- 5.7-1(b) *Mechanical ventilation shall be provided for all residences constructed in traffic noise environments exceeding 60 dB Ldn (See contours on Figure 5.7-3), which will allow occupants of those residences to close doors and windows as desired for additional acoustical isolation.*
- 5.7-1(c) *The medium- and high-density developments proposed along South Watt Avenue shall be designed to maximize the setback between that roadway and proposed common outdoor activity areas. In addition, those common outdoor activity areas shall be located so as to be completely shielded from view of South Watt Avenue by intervening structures or topography.*
- 5.7-1(d) *The proposed school shall be designed to maximize the setback between school classroom areas and South Watt Avenue. In addition, school classrooms shall be designed to provide an exterior to interior noise level reduction sufficient to reduce traffic noise levels within classrooms to 45 dB Leq or less during hours in which school is normally in session.*
- 5.7-1(e) *All prospective residents of residences located within 250 feet of either Jackson Road or South Watt Avenue shall be provided statements disclosing that both roadways are substantial noise sources and that variation in traffic conditions or atmospheric conditions can result in variations in perceived noise levels.*

5.7-2 Impacts related to the project resulting in exterior noise levels at the project site that would exceed the upper value of the normally acceptable category for various land uses, or residential interior noise levels of 45 dBA L_{dn} or greater, due to project-related operational noise level increases.

The proposed future commercial and farm uses within the project site would include noise-generating components. Specifically, noise generated by commercial uses typically results from truck deliveries to loading docks, mechanical ventilation, and parking lot movements. Agricultural operations typically include very intermittent use of farm machinery, typically tractors, during periods of plowing, spraying, and harvesting.

Because site plans for the proposed commercial uses or the urban farm have not yet been developed, the evaluation of specific noise levels at proposed residences within the project site cannot practically be accomplished. Therefore, the impact related to project-generated operational noise levels exceeding established thresholds would be ***potentially significant***.

Mitigation Measure(s)

The following mitigation measure would reduce the above impact to a *less than significant* level.

5.7-2 *When site plans for the proposed commercial uses and the urban farm have been developed, an analysis of specific noise levels at proposed residences within the project site shall be conducted and the appropriate noise mitigation measures shall be implemented in the design of the commercial and urban farm areas.*

5.7-3 Impacts related to exterior noise levels at the project site that would exceed the upper value of the normally acceptable category for various land uses, or residential interior noise levels of 45 dBA L_{dn} or greater, due to existing noise sources within the project area.

According to the environmental noise assessment, with implementation of the proposed project, noise levels generated by the existing Florin-Perkins Material Recovery Facility/Transfer Station and noise levels generated by existing businesses near the southwest corner of the project site (e.g., American Stripping) would not result in significant impacts to the project site. However, noise generated by existing operations at the Teichert Perkins facility, including conveyor belt operations at the proposed project site, would exceed City of Sacramento noise standards at some proposed residential areas within the project site.

Existing Operations at the Teichert Perkins Plant

As noted in Figures 5.7-6 and 5.7-7, existing operations at the Teichert Perkins plant generate noise levels in excess of the City of Sacramento noise level standards for the future residential uses on portions of the project site. The specific areas that are potentially impacted are those areas of the project site that are proposed for residential uses within the noise contours shown on Figure 5.7-6 for nighttime operations of all plants (rock, asphalt, and ready-mix), and on Figure 5.7-7 for daytime and nighttime operation of the rock plant. If the Teichert Perkins plant continues to be in operation as residences are constructed within the noise contours shown on Figures 5.7-6 and 5.7-7, additional mitigation measures would be required for these noise sources. As previously discussed, the most significant of the Teichert Perkins noise sources in terms of impact upon the proposed project is the rock plant. Because much of the crushing and screening equipment associated with that plant is elevated, the degree of screening of that elevated equipment achieved by site topography and grading is negligible. As a result, options for mitigating noise generated by the Teichert Perkins plant are few. Therefore, mitigation measures would need to be implemented at the Teichert Perkins plant in order to reduce Teichert-generated noise levels to a state of compliance with City of Sacramento noise ordinance standards.

Noise Impacts Associated with Ongoing Operation of the Aggregate Conveyor Belt

As noted previously, the conveyor belt that supplies raw aggregate materials to the Teichert Perkins plant currently runs through the project site. The conveyor typically begins operations at the same time as the Perkins Rock Plant and continues to operate an hour after the Perkins rock plant stops to clear the belt of aggregate material.

To quantify the noise emissions of the conveyor belt, BAC conducted noise level measurements at locations near the operating conveyor on April 29, 2009. The conveyor measurement results were used to identify the approximate locations of the 50 and 55 dB L_{50} noise contours for that equipment, which are shown on Figure 5.7-9. The 55 and 50 dB L_{50} values represent the City of Sacramento Noise Ordinance daytime and nighttime noise level standards, respectively.

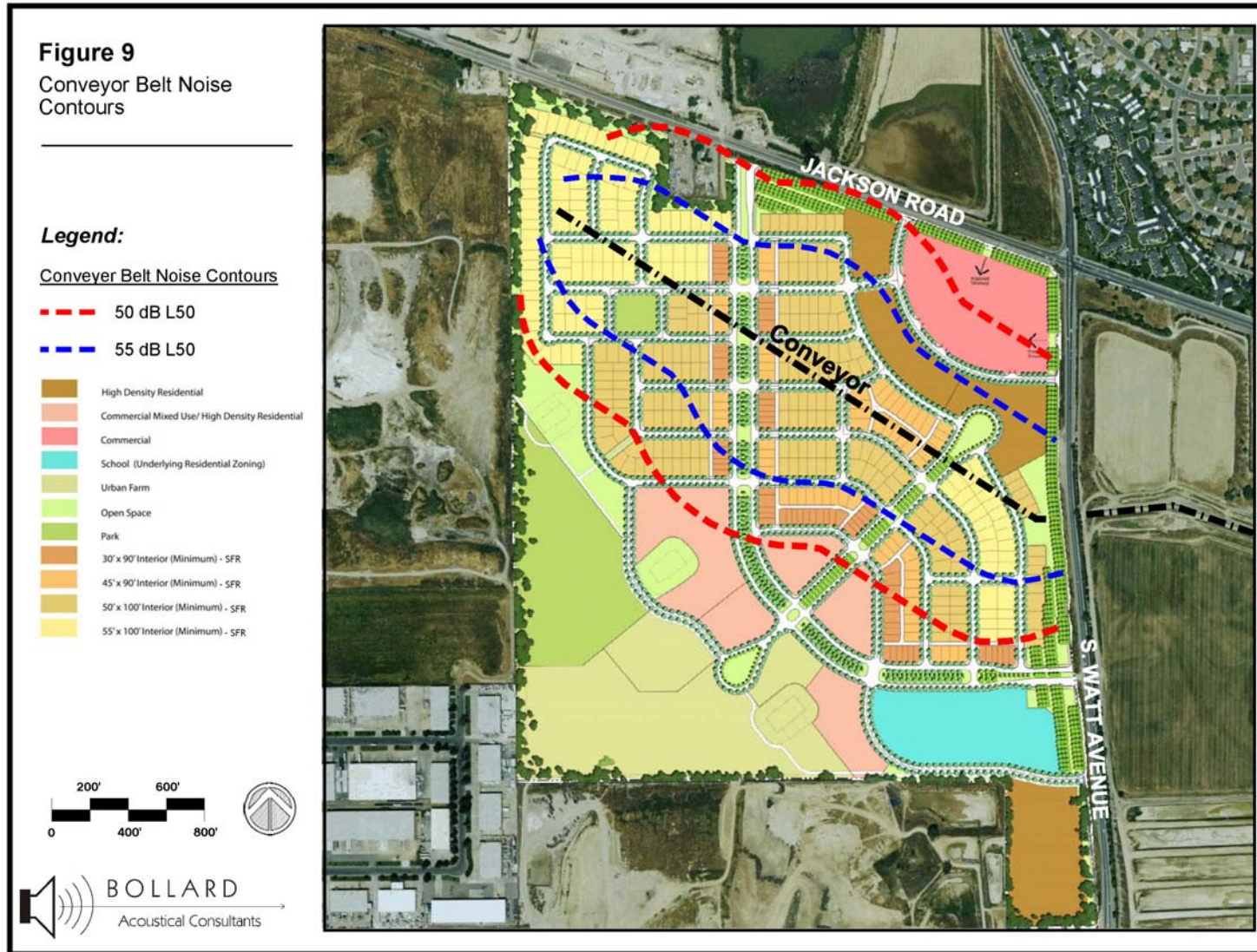
As noted in Figure 5.7-9, existing operation of the Teichert Perkins plant conveyor belt on the project site would generate noise levels in excess of the City of Sacramento noise level standards for new residential uses at portions of the project site. The specific areas that are potentially impacted are the proposed residential areas of the project site within the 50 dB L_{50} noise contours shown on Figure 5.7-9. Because noise from the conveyor would exceed the City of Sacramento 55 and 50 dB L_{50} daytime and nighttime noise level standards, respectively, consideration of additional noise mitigation measures for these sources will be necessary at such a time as project development encroaches within the 55 and 50 dB L_{50} noise contours identified in Figure 5.7-9.

According to the environmental noise assessment, due to the number of permutations associated with distance between residences and conveyor segments, conveyor type, elevation of receiver relative to conveyor elevation, distance between conveyor and noise barrier, and distance between noise barrier and receiver, it is impractical to provide analysis of each combination of these variables. However, noise barriers could be used in conjunction with setback limitations to effectively maintain conveyor noise levels within compliance of City noise standards until such time as the conveyor operations cease. To predict more exact barrier heights, more specific geometry of the various components that affect noise barrier performance is required.

The existing transfer point between two segments of the conveyor is elevated, but the typical height of the majority of the conveyor system is approximately three to four feet above ground. At positions near the conveyor transfer point, the reference noise level measured at a distance of 60 feet was 75 dB L_{50} . At locations removed from the transfer point, the measured reference noise level at this same distance was 72 dB L_{50} . The degree of noise reduction required of the noise barrier will depend on the proximity of the residences to the operating conveyor, as well as the proximity of those residences to the conveyor transfer point. For example, if construction of residences is to occur as close as 200 feet from the operating conveyor, the noise level from the conveyor prior to construction of the barrier would be approximately 64 dB L_{50} at that 200 foot distance. Assuming the conveyor would continue to operate at night, a noise barrier reduction of 14 dB would be required to achieve satisfaction with the City of Sacramento nighttime Noise Ordinance standard of 50 dB L_{50} .

As noted previously, a noise barrier can be expected to provide a noise reduction of 5 dB once it intercepts line of sight between the noise source and receiver. As a general rule, each additional foot of noise barrier height beyond that required to intercept line of sight will provide an additional noise reduction of 1 dB. Because a barrier approximately 5 feet in height would likely intercept line of sight between future residences and the typical conveyor segments (i.e. non-elevated transfer segment of the conveyor), a total barrier height of approximately 14 feet could be required to reduce conveyor noise to a state of compliance with City of Sacramento nighttime noise standards for a residence 200 feet from the operating conveyor.

Figure 5.7-9
Conveyor Belt Noise Contours



If, however, the nearest residence was 300 feet from the conveyor, a barrier approximately 12 feet in height would be necessary to provide the required noise reduction.

Conclusion

Existing operations at the Teichert Perkins plant, including the ongoing operation of the aggregate conveyor belt, would result in noise levels that exceed the City's threshold for acceptable exterior or interior noise levels. It was determined that mitigation measures would need to be implemented at the Teichert Perkins plant in order to reduce Teichert-generated noise levels to a state of compliance with City of Sacramento noise ordinance standards. Therefore, the project's impact would be **significant**.

Mitigation Measure(s)

The following mitigation measures would reduce the above impact, but not to a *less than significant* level and the impact would remain *significant and unavoidable*. In addition, it should be noted that Mitigation Measures 5.7-3(a) and 5.7-3(b) only apply if operations of the Teichert Perkins plant continue to occur after the construction of residences within the noise contours shown on Figure 5.7-7. In addition, Mitigation Measures 5.7-3(c) through 5.7-3(e) only apply if operation of the Teichert Perkins plant conveyor system on the proposed project site would continue to occur following construction of residences within the noise contours shown on Figure 5.7-9.

5.7-3(a) *All prospective residents of residences located within the noise contours shown on Figure 5.7-7 shall be provided statements disclosing that operations at the Teichert Perkins plant can and do occur at night, and that variations in those operations or atmospheric conditions can result in variations in perceived noise levels.*

5.7-3(b) *Project development shall not extend into the noise contours shown on Figures 5.7-6 or 5.7-7 until such a time as either operations at the Teichert Perkins plant have ceased, or until a comprehensive analysis of the specific noise generation of each major component of the Teichert rock and ready-mix plants has been undertaken to identify appropriate source noise control treatment options, and such treatments have been implemented. The focus of such options is the overall reduction in noise generation of those plants such that noise levels received within the proposed development would ultimately satisfy the Sacramento Noise Ordinance Standards during daytime and nighttime hours, respectively. Source noise control measures which shall be considered include the following:*

- *Suspension of acoustic curtains adjacent to the noisiest plant equipment;*
- *Complete or partial enclosure of the noisiest plant equipment;*
- *Ensuring that all screen-decks utilize quiet technology such as urethane screens;*
- *Line aggregate chutes and hoppers with heavy urethane sheets to both dampen the metal structures and minimize impact noise associated with aggregates falling onto metal surfaces;*
- *Utilize alternatives to backup beeper warning devices such as strobes, radar based systems, growlers, etc.; and/or*

- *Replacement of older noisier equipment with quieter equipment.*

5.7-3(c) *All prospective residents of residences located within the noise contours shown on Figure 5.7-9 shall be provided statements disclosing that operations at the Teichert conveyor operations can and do occur during both daytime and nighttime hours, and that variations in those operations or atmospheric conditions can result in variations in perceived noise levels.*

5.7-3(d) *At such a time as development within the project site is projected to encroach into the noise contours shown on Figure 5.7-9, the conveyor system shall be relocated to a position closer to Jackson Highway to create a greater buffer between the residential construction and the noise impact contours of the conveyors.*

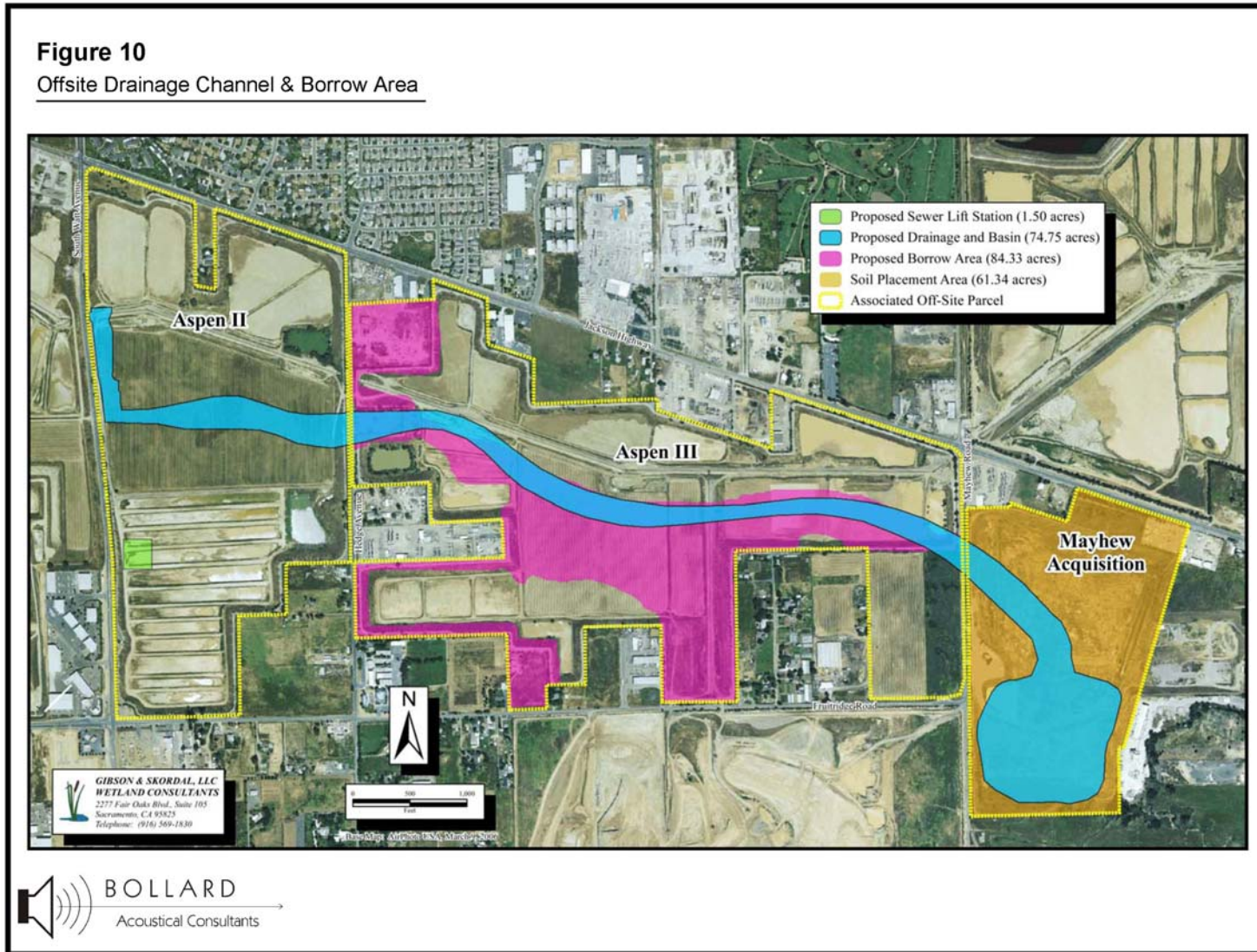
5.7-3(e) *At such a time as development within the project site is projected to encroach into the noise contours shown on Figure 5.7-9, either with the conveyor system in its current configuration, or following relocation of the conveyor (Mitigation Measure 5.7-3[d]), a solid noise barrier shall be constructed adjacent to the conveyor system to further reduce noise levels at residences constructed within the project site. Such a barrier could take the form of an earthen berm, solid wall, or combination of berms and walls. The noise reduction provided by such a barrier would depend on the relative heights of the conveyor, top of barrier, and nearby residences, as well as the relative distances between the conveyor and noise barrier, and distance from noise barrier to receiver.*

5.7-4 Impacts related to project construction noise levels not being in compliance with the City of Sacramento Noise Ordinance.

During the construction phases of the project, noise from on-site construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. In addition, noise would be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites, including stockpiling and earthmoving activities. This noise increase would be of short duration and, provided construction activities occur during daytime hours, construction activities would be exempt from the provisions of the City of Sacramento Noise Ordinance (Page 10, Provision “E”). Because on-site construction activities are proposed to adhere to the City’s requirements, adverse on-site construction noise effects were not identified for the project.

Off-site project construction would include the creation of a drainage channel from South Watt Avenue to east of Mayhew Road, including the storage of soil generated by the channel excavation at the Mayhew Acquisition site. In addition, off-site construction would include the transfer of fill material from the Aspen III borrow area for project site grading. The locations of the drainage channel, borrow areas, and soil placement areas are identified on Figure 5.7-10.

Figure 5.7-10
Off-Site Drainage Channel and Borrow Area



Heavy earthmoving equipment including scrapers, graders, compactors, off-road trucks, excavators, and water trucks will be utilized for the channel construction, borrow area material transfer, and soil placement. As with on-site construction activities, noise generated during these off-site construction activities would generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Median noise levels would be approximately 80 dB L_{50} at the 50 foot reference distance. If off-site construction were to occur during daytime hours, the noise generation of those activities would be exempt from the City and County noise ordinance provisions. If, however, off-site construction activities were to occur during nighttime hours, the activities would be subject to the 50 dB nighttime noise level standard at existing residential uses.

Because construction equipment and locations would be variable, the noise generation of off-site construction activities would, similarly, be variable. Using standard sound propagation algorithms the distance to the 50 dB L_{50} exterior noise level contour was conservatively computed to be approximately 1,400 feet from off-site construction areas utilizing the above-described heavy earthmoving equipment, not accounting for shielding provided by the depressed construction area. Therefore, any nighttime off-site construction activities occurring within 1,400 feet of an unshielded existing residence could result in noise impacts relative to the City and County of Sacramento nighttime noise standards.

The noise consultant conducted a visual survey of all residences located within 1,400 feet of the channel construction, borrow areas, and soil storage areas shown on Figure 5.7-10 to determine the degree of shielding that could be expected from the depressed elevation of the construction areas. From that survey, it was determined that only the three to four existing residences located on Newton Drive would be potentially exposed to excessive noise levels during nighttime channel construction activities. Specifically, noise generated during nighttime channel construction activities would be approximately 60 dB L_{50} at these residences.

With respect to nighttime construction activities within the borrow areas identified in Figure 5.7-10, the visual survey revealed that in addition to the existing residences on Newton Drive, residential locations north of Jackson Highway, Hedge Avenue, and Fruitridge Road are within 1,400 feet of the borrow area and only partially shielded by intervening topography. As a result of the proximity of these sensitive areas to the proposed borrow area, and the lack of shielding that would be provided to many of these areas, nighttime construction activities within 1,400 feet of unshielded locations are not recommended. As with the channel construction, if a beltline is used to transport soil and aggregate materials from the off-site construction areas rather than haul trucks, the noise generation of the beltline would be negligible and not subject to the 1,400 foot setback requirement.

With respect to nighttime construction activities within the Mayhew Acquisition soil storage areas identified in Figure 5.7-10, the visual survey revealed that one residence on the south side of Jackson Highway could potentially be affected by noise levels. As a result of the proximity of this sensitive area to the proposed soil storage area, and the lack of shielding that would be provided to this area, nighttime construction activities within 1,400 feet of this residence are not recommended. Again, if a beltline is used to transport soil and aggregate materials from the off-site construction areas rather than haul trucks, the noise generation of the beltline would be negligible and not subject to the 1,400 foot setback requirement.

Conclusion

Because nighttime construction activities in the off-site areas could result in noise levels that would exceed thresholds, the proposed project's impact would be ***potentially significant***.

Mitigation Measure(s)

The following mitigation measure would reduce the above impact to a *less than significant* level.

5.7-4 *If haul trucks are used to transport soil and aggregate materials from the off-site construction areas, construction activities shall be limited to daytime hours when within the following areas:*

- 1,400 feet of the existing residences located on Newton Drive;
- 1,400 feet of unshielded locations near the soil borrow areas; and
- 1,400 feet of the residence on the south side of Jackson Highway near the Mayhew Acquisition soil storage areas.

5.7-5 Impacts related to exposure of future residential and commercial areas to vibration ppv greater than 0.5 inches per second or exposure of historic buildings and archaeological sites to vibration ppv greater than 0.2 inches per second due to project construction or highway traffic and rail operations.

According to the noise assessment, extensive field inspections of both the project site and neighboring uses did not reveal any discernable sources of vibration that would adversely affect future sensitive land uses located within the project area. In addition, the proposed project would not create any appreciable sources of vibration, so vibration impacts either due to the project, or upon the project, are not anticipated. As a result, impacts related to exposure of future residential and commercial areas or historic buildings to excessive groundborne vibration would be ***less than significant***, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

5.7-6 Cumulative noise impacts.

The cumulative contribution of noise from operation of the Teichert Perkins plant and traffic on Jackson Highway is difficult to quantify. This difficulty arises from differences in the way noise is generated by these sources and differences in noise standards which are applied by the City and County of Sacramento to industrial (fixed) versus transportation (mobile) noise sources. Specifically, noise from the Teichert Perkins plant is generated from elevated positions with direct "view" of the project site from fixed (non-mobile) positions, is typically steady state (not time varying), and is subject to hourly performance standards. On the other hand, noise from traffic on Jackson Highway is mobile (moving point sources), time varying, generated at ground level locations which are substantially shielded from view of the project site, and subject to weighted 24-hour average noise standards (Ldn).

The noise analysis prepared for this project quantifies the noise generation of each of the noise sources affecting the project site, and assesses noise impacts and mitigation measures of these sources. From a cumulative standpoint, noise generated by traffic on Jackson Highway and the Teichert Perkins plant would be additive, but only in a narrowly defined area where the sound pressure levels of the two sources are within 10 dB of each other. When the sound pressure levels of the two sources are equal, the cumulative increase in ambient noise levels on the project site would be 3 dB. Because the sound pressure levels of Jackson Highway traffic change hourly as traffic volumes on that roadway change, whereas the noise generation of the Teichert Perkins plant equipment is fairly constant when the plant is in operation, the locations on the project site where the cumulative increase in noise would approach 3 dB would shift over the course of the day.

To summarize, the cumulative contribution of noise from the Teichert Perkins plant and Jackson Highway would range from 0-3 dB on portions of the Aspen I project site closest to both of those sources. However, following implementation of the noise mitigation measures that have been developed for each of these sources separately, the applicable noise standards of the City and County of Sacramento would be satisfied and the cumulative impact would be ***less than significant***. Consequently, the project would not create cumulative noise impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Endnotes

¹ Bollard Acoustical Consultants. *Environmental Noise Assessment*. April 14, 2011.

² Bollard Acoustical Consultants. *Memorandum re: discussion of combined (cumulative) contribution of noise from Teichert Perkins Plant and Jackson Highway as it affects the Aspen I project site*. July 29, 2011.

³ City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

⁴ City of Sacramento. *Sacramento 2030 General Plan Draft Master EIR*. March 2009.

⁵ City of Sacramento. *Noise Control Ordinance*. December 2003.

5.8 PARKS AND RECREATION

5.8

PARKS AND RECREATION

5.8.0 INTRODUCTION

The Parks and Recreation chapter of the EIR describes the recreation facilities within the project area and the associated potential impacts to the facilities that would result from the proposed project. This chapter also discusses thresholds of significance for such impacts, and develops mitigation measures and monitoring strategies, if necessary. Information for this analysis is drawn from the *Sacramento 2030 General Plan*,¹ the *Sacramento 2030 General Plan Master EIR (MEIR)*,² and the *City of Sacramento Parks and Recreation Master Plan 2005-2010*.³

Pertinent comments received in response to the Notice of Preparation (NOP), and comments received at the associated NOP scoping meeting for the proposed project, have been integrated into the analysis. Comments related to recreation are addressed in Impact Statements 5.8-1 and 5.8-2.

5.8.1 EXISTING ENVIRONMENTAL SETTING

The proposed project would include detachment from the Cordova Recreation and Park District (CRPD) and annexation into the City of Sacramento.

Cordova Recreation and Park District

The CRPD encompasses approximately 75 square miles, includes 34 parks on approximately 430 acres, one golf course, one shooting center, and one sports center. The district serves approximately 110,000 residents in Rancho Cordova and several Sacramento County neighborhoods. The CRPD boundaries are generally defined by the American River to the north, Jackson Road to the south, Prairie City Road to the east and Watt Avenue to the west.

City of Sacramento Department of Parks and Recreation

According to the *City of Sacramento Parks and Recreation Master Plan 2005-2010*, the Department of Parks and Recreation maintains more than 3,160 acres of parkland including 1,716 developed acres, manages 208 parks, recreation, parkway, and open space sites, maintains over 74 miles of bike trails, 14 miles of jogging and walking paths within City parks, and operates over 27 aquatic facilities (e.g., swimming pools, play pools, and wading pools), seven dog parks, eight skateboard parks, 13 community centers, and eight neighborhood centers with numerous programs, rental uses, and leisure enrichment classes. Parks are generally categorized by the Parks Department into the following four distinct park types: 1) neighborhood; 2) community; 3) regional/parkways; and 4) open space. Neighborhood and community parks contribute to a sense of community by providing gathering places for recreation, entertainment, sports, or quiet relaxation, while regional parks tend to be larger and serve the needs of the entire City. According to the *City of Sacramento Parks and Recreation Master Plan*, the four types of parks are defined as follows.

Neighborhood Serving Parks: Neighborhood Serving Parks are generally five- to ten-acre parks that are intended to be used primarily by the people who live nearby or within walking or bicycling distance of the park. Some neighborhood parks are situated adjacent to an elementary school; improvements are usually oriented toward the recreation needs of children. Park amenities may include: a tot lot, an adventure area, unlighted sport fields or sport courts, a group picnic area, and/or parking limited to on-street. The primary design elements of Neighborhood Serving Parks include basic landscaping/irrigation/turf/trees; site furniture; walkways; entry improvements; signage; drinking fountains; children's play area (tot lot and adventure area); picnic area with shade structure; sport court; and/or sports field.

Community Serving Parks: Community Serving Parks are parks or facilities developed primarily to meet the requirements of a large portion of the City. In addition to Neighborhood Serving Park amenities, Community Serving Parks could include the following: a large group picnic area with shade structure; a community garden; a neighborhood/community skate park; restrooms; on-site parking; a bicycle trail; a nature area; a dog park; lighted sport fields; and/or sport courts. The following are the primary design elements of Community Serving Parks: all design elements of Neighborhood Serving Parks; a water element; field lighting; a sports complex; an amphitheater; restrooms; a parking lot; and/or a nature area.

Regional Serving Parks: Regional Serving Parks are parks or facilities developed with a wide range of amenities, which are not found in Neighborhood or Community Serving Parks to meet the needs of the entire City population. In addition to the amenities found in Neighborhood and Community Serving Parks, improvements could include the following: a golf course; a marina; an amusement area; a zoo; and/or other region-wide attractions. Some facilities in the park may be under lease to community groups. Multi-use trail corridors or parkways are also considered regional serving recreational amenities.

Open Space: Open spaces are natural areas that are conserved to enhance the City's environmental amenities. Recreational use of these areas may be limited to natural features of the sites, such as native plant communities or wildlife habitat. Open spaces may be located in Neighborhood, Community, or Regional Serving Parks and would have a corresponding service area, depending on the park type.

Project Area Recreational Facilities

The following describes the existing parks and recreational facilities located within the proposed project site vicinity (See Figure 5.8-1).

Granite Regional Park

Granite Regional Park is a 92.71-acre regional park located at Ramona and Cucamonga Avenues. The facilities at Granite Regional Park include the following: picnic areas; soccer fields (including one all-weather field); a lake; horseshoe pits; a dog park; a concrete skate park; a nature area; and restrooms.

Glenbrook Park

Glenbrook Park is a 17.56-acre community serving park located at 8500 La Riviera Drive. The facilities at Glenbrook Park include the following: picnic areas with barbeques; baseball and softball fields; soccer fields; a tot play area; a dog park; tennis courts; and restrooms.

**Figure 5.8-1
Parks in the Vicinity of the Project Site**



Sim Park

Sim Park is a 13.51-acre community serving park located at 6207 Logan Street. The facilities at Sim Park include the following: picnic areas; a baseball field; a soccer field; a tot play area; a community center; basketball courts; swimming/wading pools; a concession building; a 0.5-mile jogging trail; and life trail stations (senior and disabled fitness equipment stations).

Baer Park

Baer Park is a 4.05-acre neighborhood serving park located at 7851 35th Avenue. The facilities at Baer Park include the following: picnic areas; a youth softball field; a soccer field; basketball and volleyball courts; a tot play area; an indoor community facility; and restrooms.

Oki Park

Oki Park is an 8.92-acre neighborhood serving park located at 2715 Wissemann Drive. The facilities at Oki Park include the following: picnic areas; soccer fields; basketball and volleyball courts; a tot area; a swimming/wading pool; a water mister area; and restrooms.

Proposed Project Recreational Facilities

The project would include a total of 66.8 acres of land designated as either Park or Open Space/Median in several separate areas throughout the project site. The project would include two public parks (a neighborhood serving park and a community serving park), an urban farm with community gardens, two mini-parks, medians and promenades, and various open space areas to be privately managed.

The purpose of the recreational facilities on the project site is to preserve open space for outdoor recreation, and as a visual amenity. As part of the *New Brighton PUD Guidelines* for the proposed project, a *Parks, Recreation, and Open Space Master Plan* has been prepared.⁴ The *Parks, Recreation, and Open Space Master Plan* would be included as part of the Design Guidelines for the project and would provide a framework for the design of the parks that are proposed as part of the project. It should be noted that the project parks that would be dedicated to the City would undergo a separate master planning process to determine the location of the amenities to be included in the parks.

The centerpiece of the *Aspen 1-New Brighton Parks, Recreation, and Open Space Master Plan* is the urban farm, which would be established to serve as the nucleus of the community. The urban farm provides a location to cultivate and purchase fresh produce, provide educational opportunities, and hold community events and farmers markets. Agricultural theming related to the urban farm extends well beyond its borders into all parts of the project site through community gardens, edible landscaping, perimeter planting, wildlife attracting hedgerows, and community landscape palettes. The urban farm would be tied into the overall project site through a series of on-street and off-street trails, promenades, and landscaped medians, which are designed to extend the “park experience” throughout the project site, as illustrated in Figure 5.8-2.

Visitors will immediately notice the distinctive nature of the community as they are greeted by parkways which are reminiscent of traditional neighborhoods within the City of Sacramento. The “park experience” would extend from these large, generously landscaped median areas to the

greater network of park and open space areas, which would include a community park, a neighborhood park, several mini-parks, and trails.

Chapter 16.64 of the Sacramento City Code calls for five acres of neighborhood and community parkland per 1,000 population. The proposed project's parkland calculation is summarized in Table 5.8-1. The proposed project would provide a total 14.5 acres of parkland out of the 14.95 acres required to meet the parkland dedication obligation per Quimby Act requirements. The remainder may come from private recreation facilities within the project area or the payment of in-lieu fees. The remaining 52.3 acres of open space and recreational areas would be privately owned and maintained and are not eligible for parkland dedication consideration. The additional 52.3-acre area includes the 23.8-acre urban farm parcel and 28.5 acres of median boulevard parks, landscaped entries, corridors along streets, shortcuts, and slope areas.

Land Use	Density (du/ac)	Acres (net)	Maximum # of Units	Park Factor	Park Acres Required
RMU	30.0	13.5	405	0.0088	3.56
HDR	25.0	15.1	378	0.0088	3.33
Urban Farm	-	-	50	0.0088	0.44
Commercial	-	-	50	0.0088	0.44
SFD	8.2	59.1	482	0.0149	7.18
Total Parkland Required					14.95
Total Parkland Provided					14.50
Note: Parkland requirements are based on maximum units as approved on the Tentative Subdivision Map. In the event residential densities or unit counts are modified, the amount of parkland required may change, requiring adherence to Chapter 16.64 of the Sacramento City Code.					
Source: Stonebridge Properties LLC, New Brighton PUD Guidelines, April 2011.					

Parkland dedication requirements are based on the number of anticipated residential units and the type of units. When individual lots are not created (as with a master parcel map) or the maximum density is not yet determined, then the zoning and maximum density are used to determine the parkland dedication requirement. In the case of this project, a small lot tentative subdivision map was included with the application, allowing the parkland requirement to be precisely calculated for the project. It should be noted that if the Land Use Plan and Tentative Subdivision Map is amended, this could affect the calculation of required parkland and may require an increase in the parkland dedication or in-lieu fee obligations under the City of Sacramento Code Section 16.64.

Urban Farm

As illustrated in Figure 5.8-2, the Urban Farm is located at the southwest corner of the Plan Area, strategically placed at the intersection of Rock Creek Parkway and the Aspen Promenade. Designed to serve as the centerpiece of the community, the Urban Farm will provide a central location for residents and surrounding neighbors to obtain fresh produce and assorted agricultural goods. In addition, the Urban Farm allows for up to 50 residential units, a potential school site or related educational facilities, and a community barn that has the ability to host community events such as farmers markets, barn dances, outdoor movies, harvest festivals, and craft fairs.

**Figure 5.8-2
Proposed Parks, Recreation, and Open Space Master Plan**



Community Gardens

The establishment of a Community Garden is an important element of this project. The safety and vitality of a healthy community relies heavily upon the vested pride of ownership that residents have for their neighborhood. The Community Garden is a place where neighbors can invest in the beauty and vitality of their community by individually cultivating their own small plots while fostering a focal point for neighborhood gatherings and social interaction. The Community Garden is centrally located and in close proximity to the Urban Farm, as shown in Figure 5.8-2. It is anticipated the Community Garden and Urban Farm will share resources and develop an interactive relationship.

Community Park

A 13.4 acre community park is located in the southwestern portion of the Plan Area adjacent to the Urban Farm parcel and west of the power lines, as shown in Figure 5.8-2. It is well positioned for convenient access to area roadways and is located within a half mile of most residential areas within the Plan Area. The park is located to provide easy access from transit and bicycle routes along Rock Creek Parkway and the Class I trail system, which ties into the Community Park and Urban Farm locations.

The park amenities would be determined through a public master planning process, to occur at a later date; typical community park improvements may include lighted sports fields or sport courts, children's play areas, group picnic facilities and shade structures, concession and/or equipment buildings, restroom facilities, pedestrian and bicycle trails, off-street parking, and landscaping.

Neighborhood Park

The proposed project includes a 1.1 acre neighborhood park located in the northwest quadrant of the Plan Area that has been designed as a traditionally shaped square park with facing residences to provide eyes on the park (See Figure 5.8-2). On-street parking would be provided. The neighborhood park is intended to provide a local gathering space for residents within the Plan Area. The Neighborhood Park would also undergo a public master planning process at a later date, but would typically be developed with amenities including, but not limited to, turf areas, seating, picnic facilities and shade structures, a sport court or sport field, and a small tot-lot or playground. Structures and amenities should be designed to reflect the design of the community and should be reflective of its landscape and architectural character.

Mini-Parks

Two teardrop shaped Mini-Parks are proposed within the Plan Area at either end of Aspen Promenade, as illustrated in Figure 5.8-2. They provide a green terminus and focal point at either end of the project's signature street, and signal an important pedestrian connection between the High Density Residential and Commercial at the northeasterly end and the mixed-use nature of the Four Corners Area and the Urban Farm at the southwesterly end of the Plan Area. The Mini-Parks are intended to provide a local gathering space for residents for informal activities and interaction. Although they are relatively small in scale, Mini-Parks provide a useful function and can accommodate a range of activities and amenities. Programming for Mini-Parks can be simple, but they should be designed to reflect the Park Neighborhood design of the

Community in landscape palette and architectural character. The northern Mini-Park is adjacent to residential and should accommodate active and passive uses in a garden setting. These uses could include children's play areas, picnicking, tree alleys, arbors, and small shade structures. The southern Mini-Park shall be designed to be compatible with community events at the Urban Farm, with flexibility for larger gatherings such as an amphitheater, farmers market, or informal activity lawn.

Medians and Promenades

In order to emulate the history and embody the design of traditional neighborhoods within the City of Sacramento, generously landscaped boulevard parks have been incorporated into the Plan Area. These "boulevard" medians are intended to create signature streets which provide lush landscaping, visual and recreational opportunities, facilitation of transit, and stormwater management opportunities such as Low Impact Development. Located as shown in Figure 5.8-2, these generously proportioned landscape medians would be a significant contributor to the scenic value and unique character of the community.

Rock Creek Parkway, the main collector road through the community, provides a 74-foot-wide median intended to provide a dramatic backdrop for homes and neighborhood areas along its frontage. This median's primary functions include facilitating future transit, pedestrian access, limited recreational opportunities, and providing areas for LID features to capture urban runoff. Aspen Promenade, the project's primary signature street, connects the more intense commercial site and high density residential sites in the northeast corner of the site to the Four Corners and the urban farm in the southwest corner of the site. Designed as a 50-foot-wide median reminiscent of T Street in the Elmhurst neighborhood of Sacramento, this median would be designed to accommodate water quality features and limited neighborhood programming.

Perimeter Open Space Areas

The total area and size of perimeter open space lands within the Plan consists of approximately 12 acres of buffer, entry, and slope landscaping that includes recreational trails and water quality features. As shown in Figure 5.8-2, the perimeter landscape provides a clear physical identity for the plan as well as providing connections for paths and trails to link community features. Due to the topographic conditions of the site, slopes are necessary for a large portion of the perimeter. These slopes and generous entry setbacks provide opportunities for additional landscaping and buffering of adjacent arterial roadways.

Additional Open Space Areas

Figure 5.8-2 identifies additional open space areas within the Plan Area. These open space properties include portions of the land beneath the power line easement, slopes for the transmission towers, and a mid-block paseo, totaling an additional approximately seven acres of designated open space. The additional open space areas could be used for parking areas for the Community Park, bicycle trails, water quality systems, and/or landscaping of slopes for transmission towers. A block-long shortcut provides convenient and direct pedestrian access between intersections for residents north of the Community Park.

Class I Trail System

The proposed Class I trail system for the proposed project is comprised of an interconnected system of on-street sidewalks, Class II and III bicycle lanes, Class I trails, and shortcuts. The comprehensive system would promote alternative modes of travel and facilitate easy access between residential, commercial, educational, and recreational opportunities within the project site and greater community without the use of automobiles. Trails provide an easily accessible outdoor resource for many forms of recreation, most notably bicycling, and walking and trails greatly increase community access to physical activity and fitness opportunities such as bicycling and walking. A well defined trail system not only increases mobility but can affect the quality of community life. Trails can express community character and pride, aesthetics of the local environment, access to the outdoors, opportunities for socialization, and increased mobility. The general framework for perimeter connections to the trail network is contained within the *City of Sacramento Pedestrian Master Plan*⁵ and the *Sacramento County Bicycle Master Plan*.⁶ Jackson Highway and South Watt Avenue are planned as pedestrian street corridors, while a future trail is conceptually planned along the powerline easement which passes through the Four Corners Community Center District. In addition to these off-site systems, South Watt Avenue and Jackson Highway are designated to include Class II bicycle lanes. The trail network within the Plan Area has been designed to connect to the planned off-site trail network and would be developed as shown in Figure 5.8-3. The trail network shown on Figure 5.8-3 would utilize a variety of bikeways and trails, which are classified in Table 5.8-2. It should be noted that an amendment to the City's *2010 City/County Bikeway Master Plan*⁷ is required in order to include the Aspen 1-New Brighton Trails Plan in the Master Plan document and maps.

Class	Surface	Description
I	Paved	Off-street multi-use bicycle and pedestrian path. Class I trails are used in the Plan Area to facilitate access between the elementary school, urban farm, and powerline corridor trail system.
II	Paved	Signed on-street bicycle routes with a striped lane. Class II bicycle routes within the Plan Area include Jackson Highway, South Watt Avenue, Rock Creek Parkway, Aspen Promenade, and Collector Streets.
III	Paved	Signed on-street bicycle routes without a striped lane. Class III bicycle routes comprise all roadways within the Plan Area which do not have a separate striped lane.
N/A	Varies	Shortcuts vary in size and surface but are intended to provide an all-weather surface to facilitate pedestrian movement between uses and shorten travel distance.

Source: Stonebridge Properties, LLC. New Brighton PUD Guidelines. April 2011.

**Figure 5.8-3
Class I Trail System**



5.8.2 REGULATORY BACKGROUND

State Regulations

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. 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 for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

State Public Park Preservation Act

The primary instrument for protecting and preserving parkland is the State Public Park Preservation Act. Under the Public Resources Code Section 5401(a), cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The Sacramento 2030 General Plan contains extensive discussion, goals, and policies relating to the provision of recreation and open space areas. The following goals and policies are applicable to the proposed project

Education, Recreation, and Culture: Parks and Recreation

Goal ERC 2.1 Integrated Parks and Recreation System. Provide an integrated system of parks, open space areas, and recreational facilities that are safe and connect the diverse communities of Sacramento.

Policy ERC 2.1.1 Complete System. The City shall develop and maintain a complete system of parks and open space areas throughout Sacramento that provide opportunities for both passive and active recreation.

Policy ERC 2.1.2 Connected Network. The City shall connect all parts of Sacramento through integration of recreation and community facilities with other public spaces and rights-of-way (e.g., buffers, medians, bikeways, sidewalks, trails, bridges, and transit

routes) that are easily accessible by alternative modes of transportation.

- Goal ERC 2.2 Parks, Community and Recreation Facilities and Services. Plan and develop parks, community and recreation facilities, and services that enhance community livability; improve public health and safety; are equitably distributed throughout the city; and are responsive to the needs and interests of residents, employees, and visitors.
- Policy ERC 2.2.2 Timing of Services. The City shall ensure that the development of parks and community and recreation facilities and services keeps pace with development and growth within the city.
- Policy ERC 2.2.3 Service Level Goals. The City shall develop and maintain parks and recreational facilities in accordance with the goals in Table ERC 1 (See Table 5.8-3).
- Policy 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 in Table ERC 1 (See Table 5.8-3). 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.
- Policy 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.
- Policy ERC 2.2.11 On-Site Facilities. The City shall promote and provide incentives such as density bonuses or increases in building height for large-scale development projects to provide on-site recreational amenities and gathering places that are available to the public.
- Policy ERC 2.2.18 Private Commercial Recreational Facilities. The City shall encourage the development of private commercial recreational facilities to help meet recreational interests of Sacramento's residents, workforce, and visitors.

Table 5.8-3 Parks, Community Facility, and Recreation Facility Service Level Goals	
Park Types	Acres per 1,000 Residents
Neighborhood Serving: Urban plazas, pocket parks and/or Neighborhood Parks	2.5
Community Serving: Community Parks	2.5
Citywide/Regionally Serving: Regional Parks, Parkways, and/or Open Space	8.0
Linear Parks/Parkways and Trails/Bikeways	0.5 linear miles
Community Facilities	Number of Units
Neighborhood Centers (Clubhouses)	1 per neighborhood ¹
Multi-Use Recreation Complexes (including Community Centers)	1 per 30,000 residents
Recreation Facilities	Number of Units per Resident
Aquatic Facilities: Play Pool/Water Spray Feature	1 per 15,000
Outdoor Complex: Swimming and Wading Pool	1 per 30,000
Off Leash Dog Parks (Neighborhood/Community)	1 per 60,000
Picnic Areas (Large Group/Class I)	1 per 30,000
Playgrounds: Tot Lots, Adventure Play Areas	1 per 2,500
Skateboard Parks (Neighborhood/Community)	1 per 35,000
Community Gardens	1 per 50,000
Nature Interpretation Centers	2 total ²
Fields	
Softball, including: Adult, Youth Lighted	1 per 7,500 (total) 1 per 45,000
Baseball, including: Adult, Youth (Little League) Lighted	1 per 7,500 (total) 1 per 45,000
Soccer, including: Bantam, Full Size Lighted	1 per 7,500 (total) 1 per 30,000
Courts	
Volleyball	1 per 10,000
Basketball, including Youth, High School	1 per 5,000
Tennis	1 per 10,000
¹ As defined by the service area of all public elementary schools.	
² One north and one south of the American River.	

Goal ERC 2.5 Funding. Secure adequate and reliable funding for the acquisition, development, rehabilitation, programming, and maintenance of parks, community facilities, recreation facilities, trails, parkways, and open space areas.

Policy ERC 2.5.4 Capital Funding. The City shall fund the costs of acquisition and development of City neighborhood and community parks, and community and recreation facilities through land dedication, in lieu fees, and/or development impact fees.

City of Sacramento Municipal Code

Chapter 12.72 – Park Buildings and Recreational Facilities

The City's Municipal Code includes regulations associated with building and park use, fund raising, permit procedures, and various miscellaneous provisions related to parks. Park use regulations include a list of activities that require permits for organized activities that include groups of 50 or more people for longer than 30 minutes; amplified sound; commercial and business activities; and fund raising activities. This code also includes a list of prohibited uses within parks such as unleashed pets; firearms of any type; and drinking alcoholic beverages, or smoking near children's playground areas. Activities such as golfing, swimming, and horseback riding are only permitted within the appropriate designated areas.

Chapter 16.64 – Parks and Recreational Facilities

Chapter 16.64 of the Municipal Code provides standards and formulas for the dedication of parkland and in-lieu fees. These policies help the City acquire new parkland. This chapter 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. Where a recreational or park facility has been designated in the general plan or a specific plan, and is to be located in whole or in part within a proposed subdivision to serve the immediate and future needs of the residents of the subdivision, the subdivider shall dedicate land for a local recreation or park facility sufficient in size and topography to serve the residents of the subdivision. The amount of land to be provided shall be determined pursuant to the appropriate standards and formula contained within the chapter. Under the appropriate circumstances, the subdivider shall, in lieu of dedication of land, pay a fee equal to the value of the land prescribed for dedication to be used for recreational and park facilities which will serve the residents of the area being subdivided.

Chapter 18.44 – Park Development Impact Fee

Chapter 18.44 of the City's Code imposes a park development fee on residential and nonresidential development within the city. Fees collected pursuant to Chapter 18.44 are primarily used to finance the construction of park facilities. The park fees are assessed upon landowners developing property in order to provide all or a portion of the funds which will be 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 Parks and Recreation Master Plan 2005-2010

The following *City of Sacramento Parks and Recreation Master Plan 2005-2010* policies are applicable to parks and recreation.

1.0 Community Engagement and Outreach

- 1.1 Provide a variety of venues and activities for the public to build a sense of community and ownership for its social and physical quality of life.

- 1.8 Provide opportunities to enhance and encourage community stewardship of the City's green infrastructure through programs such as community gardens, volunteer activities, "Eyes on the Park," and youth employment.
 - 1.9 Continue to emphasize the value of community gardens in providing recreation, community building, productive landscape, sustainability, and educational opportunities.
- 3.0 Economic Vitality
- 3.5 Encourage integration of park and recreational amenities into the design of commercial, infill, employment, redevelopment, and transit oriented development.
- 4.0 Facility Use and Management
- 4.2 Protect and invest in the parks and recreation system's infrastructure (including all turf, landscaping, buildings, and other physical elements/improvements).
- 8.0 Maintenance (Parks)
- 8.3 Conserve water use in maintenance activities (i.e., turf management, irrigation design, and scheduling) while maintaining healthy turf, landscaping, and trees.
 - 8.5 Support the community gardens program which helps to promote healthy habits, nutrition education, and responsible stewardship of land resources.
 - 8.6 Promote volunteer stewardship activities in the City's parks, trails, and nature areas.
 - 8.7 Invest in well-maintained parks as they are vital to the City's environmental, social, and economic health.
- 10.0 Natural Resources, Rivers, Creeks, Open Space, and Parkways
- 10.2 Use traditional developed parks to serve as a transition between natural areas and urban development whenever possible.
 - 10.4 Use universal interpretive signage to educate the public and promote awareness of City parks and open spaces natural resources.
 - 10.7 Encourage recreational access to the region's water corridors and explore the concept of a water trail connecting the various corridors.
 - 10.8 Participate in partnerships for the planning, protection, development, and enhancement of the American River, Sacramento River, and other water corridors and open space areas.

12.0 Planning, Design, and Development

- 12.1 Achieve Park Acreage Service Level Goals to provide public recreational opportunities within a reasonable distance of all residences and work places as follows:
- a) 5.0 acres per 1,000 population consisting of two park categories:
 - (1) Neighborhood Serving: 2.5 acres per 1,000 population with a service area guideline of ½ mile.
 - (2) Community Serving: 2.5 acres per 1,000 population with a service area guideline of three miles, portions of which may also serve neighborhood needs.
 - b) Citywide/Regionally Serving: 8.0 acres per 1,000 population, portions of which may also serve either neighborhood or community needs.
 - c) Linear Parks/Parkways and Trails/Bikeways: 0.5 linear miles/1,000 population of trails/bikeways implemented per adopted City Bikeway and Pedestrian Master Plans.
- 12.7 Develop parks and recreation facilities according to the City of Sacramento's Park Design and Development Standards.
- 12.11 Develop parks, trails, and other recreational amenities in a manner that is consistent with flood protection goals.
- 12.18 Site parks, when geographically feasible, adjacent to compatible use areas such as greenbelts, multi-modal trail corridors, schools, other public and nonprofit facilities (e.g., libraries or police or fire stations), detention basins, and natural waterways to facilitate efficient land use, cost sharing, and customer access.
- 12.22 Promote walkability within neighborhoods and business districts through the siting of parks and recreation facilities and other activity centers.
- 12.24 Site different types of parks as follows:
- a) Small Public Places: where easily accessible and visible on a case-by-case basis according to park purpose and type;
 - b) Neighborhood Parks: on secondary streets within a residential area;
 - c) Community Parks: on primary collector streets;
 - d) Regional Parks: on or adjacent to major transportation corridors and public transportation;
 - e) Parkways: corridors for pedestrian and bicyclists, linking residential areas to schools, parks, and trail systems; and
 - f) Open Space: within and between urban growth areas.
- 12.25 Site parks adjacent to rivers and creeks to provide a buffer to natural resources and access to public waterways in coordination with the appropriate flood control agencies.
- 12.29 Design and develop safe, sustainable, and useable parks and facilities in accordance with the City Park and Recreation Facility Design and Development Standards, Crime Prevention through Environmental Design Standards

(CPTED), emerging recreation activities (trends), and in accordance with an identified purpose.

12.30 Develop and implement “sustainable design” policies and standards for the planting and care of trees, turf, and other vegetation for the reduction of water and energy use (e.g., river-friendly landscape guidelines).

12.31 Ensure plant selections and management practices are appropriate for the proposed park or open space types, site conditions, water conservation, and maintenance considerations.

12.32 Promote individual character in park design.

12.34 Provide for both active and passive recreation uses in park design for all ages.

13.0 Recreation and Community Services

13.1 Deliver a broad range of recreation and human services programs, special events, and educational opportunities at the community or neighborhood level that reflect the unique interests, needs, diversity, history, cultural background, and socioeconomic makeup of the City of Sacramento and promote health and wellness, fun, lifelong learning, skill development, personal enrichment, and positive relationships.

15.0 Safety and Access

15.1 Ensure both physical and psychological safety in design, management, and use of all Department facilities and programs, considering safety the highest priority for our users, employees, and volunteers.

18.0 Trails, Bikeways, and Bridges

18.7 Construct all new off-street bicycle trails to a standard consistent with the applicable provisions of the adopted City/County Bikeway Master Plan maintained by the Department of Transportation.

5.8.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed Aspen 1-New Brighton project would be considered to have a significant impact to parks and recreation if the project would:

- Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or
- Create the need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan.

Method of Analysis

The following Project-Specific Impacts and Mitigation Measures section evaluates the impacts on existing parks and recreational facilities that would occur if the project as currently proposed is approved and implemented. Impact significance is determined by comparing project conditions to the existing conditions, using the above significance criteria. The general methodology employed is based on information provided in the Sacramento 2030 General Plan and General Plan Master EIR.

Project-Specific Impacts and Mitigation Measures

5.8-1 Impacts related to causing or accelerating substantial physical deterioration of existing area parks or recreational facilities and/or creating a need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan.

The introduction of new residents to the project area could cause or accelerate the physical deterioration of existing parks or recreational facilities; however, implementation of the proposed project would include the construction of new parks and recreational facilities, which would result in new residents utilizing the newly-developed recreational facilities in the community. As previously discussed in this chapter, the City of Sacramento Code, Chapter 16 requires five acres of neighborhood and community park facilities per 1,000 residents. Based on the park dedication factors within the Code (0.0149 for single-family residential units and 0.0088 for multi-family residential units), the project would be required to provide 14.95 acres of parkland (See Table 5.8-1).

The proposed project would include an urban farm with community gardens, a community serving park, a neighborhood serving park, two mini-parks, medians and promenades, and various open space areas. The project would provide a total of 14.5 acres of public park and recreational areas that are eligible for Quimby Credit, with an additional 52.3 acres of private open space and recreational areas. The additional 52.3-acre area includes the 23.8-acre urban farm parcel and 28.5 acres of median boulevard parks, landscaped entries, corridors along streets, shortcuts, and slope areas.

It should be noted that, pursuant to Chapter 18.44 of the Sacramento City Code, payment of a park development impact fee is required for residential and non-residential development within the City. Fees collected pursuant to Chapter 18.44 are primarily used to finance the construction of park facilities. Therefore, the project applicant would also be required to pay the appropriate park development impact fees for the project.

It should also be noted that the annexation portion of the proposed project would require detachment from the Cordova Recreation and Park District and would be served by the City of Sacramento Department of Parks and Recreation. This detachment and annexation would not have direct or indirect physical environmental impacts and would be processed as a separate entitlement in the future.

Overall, because the project would include the dedication of 14.5 acres of parkland, which would be less than the 14.95 acres required by the City, the project would result in a **potentially significant** impact related to creating a need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level.

- 5.8-1 *Prior to recording the final map, the plans shall show a calculation of the final park acreage to be provided as part of the project in relation to the park acreage that is required to be dedicated. The improvement plans shall be submitted for the review and approval of the City Planning Department. If the project does not include the required acreage, the project applicant shall pay an in-lieu fee to the City or enter into a private recreational facilities agreement for future improvements to serve residents.*

Cumulative Impacts and Mitigation Measures

5.8-2 Impact related to the provision of adequate recreational facilities on the project site in combination with existing and future development in the Sacramento area.

The City's *Parks and Recreation Master Plan 2005-2010* indicates that the project applicant shall dedicate land for local recreation or park facilities that would be sufficient in size and topography to serve the residents of the subdivision. As discussed in Impact 5.8-1, the proposed project would meet the requirements of the City via providing sufficient parkland to serve the future residents of the project site and/or paying the applicable park development impact fees. All future individual development projects would be required under City Code and the *Parks and Recreation Master Plan* to provide adequate recreational facilities according to each project's individual contribution to the City's population. Therefore, development of the proposed Aspen 1-New Brighton parks and recreational facilities would result in a ***less than significant*** cumulative impact, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Endnotes

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- ¹ City of Sacramento. *Sacramento 2030 General Plan*. March 2009.
² City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.
³ City of Sacramento. *Parks and Recreation Master Plan 2005-2010*. April 21, 2009.
⁴ Stonebridge Properties, LLC, *New Brighton PUD Guidelines*. April 2011.
⁵ City of Sacramento. *Sacramento Pedestrian Master Plan*. September 2006.
⁶ Sacramento County. *Sacramento County Bikeway Master Plan*. April 2011.
⁷ City of Sacramento. *2010 Sacramento City/County Bikeway Master Plan*. April 1995.

5.9 PUBLIC SERVICES

5.9

PUBLIC SERVICES

5.9.0 INTRODUCTION

The Public Services chapter of the EIR summarizes information regarding the existing public services setting and identifies potential new demands resulting from the Aspen 1-New Brighton project (proposed project) on law enforcement, fire protection and life-safety services, schools, and libraries in the project area. Information for this chapter was drawn from the *Sacramento 2030 General Plan*,¹ the *Sacramento 2030 General Plan Master EIR (MEIR)*,² the *Aspen 1 Municipal Service Review*,³ and information from local service providers.⁴

5.9.1 EXISTING ENVIRONMENTAL SETTING

The existing environmental setting section describes the existing law enforcement, fire protection, schools, and other related public services for the proposed project area.

Law Enforcement

Police protection services are provided by the Sacramento Police Department (SPD) for areas within the City and by the Sacramento County Sheriff's Department for areas outside the City, but within the County of Sacramento. In addition to the SPD and the Sheriff's Department, the California Highway Patrol, the UC Davis Medical Center Police Department, Twin Rivers Police Department, and the Regional Transit Police Department provide police protection within the City and/or County.

Sacramento County Sheriff's Department

The annexation portion of the proposed project area is currently served by the Sacramento County Sheriff's Department (SCSD) which provides contract police services to the City of Rancho Cordova and law enforcement services to the unincorporated areas of Sacramento County. A variety of services are provided by the SCSD, including court security services, operating a system of jails for pretrial and sentenced inmates, and operating a training complex, which is also utilized by the Sacramento Police Department. Local police protection includes response to calls and trouble spots, investigations, surveillance, and routine patrolling.

The SCSD is currently funded for 380 deputy positions for correctional operations, compared to the recommended staffing of 459, and has 323 patrol officers for field services. Many positions have been recently eliminated due to facility closures and reductions in funding. Staffing has been provided in large by overtime and extra help positions. In order to try to maximize efficiency, the SCSD moved personnel to a five-shift model to coincide with peaks in calls for service, which have increased 10.5 percent during fiscal year 2010/2011 from the 2009/2010 fiscal year. The current staffing ratio of the SCSD is 0.63 sworn officers per 1,000 residents.⁵ It should be noted that the national average staffing ratio is 2.0 officers per 1,000 residents for communities with a population over 250,000.

The nearest station house and community service center is the Florin Station/Service Center in the Central Division, located at 7000 65th Street, approximately 5.5 miles away from the South Watt area.

Sacramento Police Department

The main headquarters for the Sacramento Police Department (SPD) is located at the Public Safety Center, Chief Deise/Kearns Administration Facility, 5770 Freeport Boulevard. The SPD facility that would serve the proposed project is the Central Command Police Facility (CCPF) located at 300 Richards Boulevard. The facility is temporary and not dedicated solely to the CCPF; however, current plans for a new facility do not exist. Approximate current staffing for the CCPF includes one Police Captain, three Police Lieutenants, 20 Police Sergeants, 18 Downtown Core Officers, and 132 Patrol Officers.⁶ CCPF services three main districts, each with their own three beats in the central portion of the City. The proposed project area is located adjacent to District 6, Beat C. Approximate current staffing for District 6C includes three police sergeants and 15 police officers, as well as 198 assigned police vehicles.

The Joseph E. Rooney Police Facility located at 5303 Franklin Boulevard, approximately 10 miles northwest from the project area, would provide support to the CCPF. Approximate current patrol staffing for the Rooney Facility includes one Police Captain, three Police Lieutenants, 14 Police Sergeants, and 100 Patrol Officers, as well as 86 assigned police vehicles. Three main districts, each having three beats, are serviced by the Joseph E. Rooney Police Facility, which cover the southern half of the City of Sacramento, bounded by US Highway 50 on the north, South Watt Ave on the east, and the Sacramento River on the west.

In addition, the SPD has police officers dedicated to Sacramento City schools. The school officers are responsible for crimes in progress, criminal investigations, truancy, and gang suppression calls involving students at the school and areas in the community surrounding the schools. Officers are responsible for calls involving students during normal school hours as well as school events during nights and weekends. The SPD also manages the Office of Emergency Services and Homeland Security, which is a multi-agency, multijurisdictional office responsible for coordinating Homeland Security and Urban Area Security Initiative grants, and various threat and terrorism response plans, training, and programs.

The SPD maintains an unofficial goal of two to 2.5 sworn police officers per 1,000 residents and one civilian support staff per two sworn officers. The SPD is currently funded for 1.4 officers per 1,000 residents. Based on a population of 466,488 people and a current staffing level of approximately 660 sworn officers and 240 civilian employees, the staffing ratio is 1.4 officers per 1,000 residents, which is below the SPD's goal. In addition, the current functional ratio of patrol cars is two patrol cars for every three patrol officers.

The SPD does not have an adopted response time standard. Calls are categorized from P1 to P6; Priority 1 calls (P1) are classified as life threatening situations and result in an immediate response to the scene. The urgency of the call descends as the priority level changes. For example, Priority 2 calls (P2) are less urgent than P1 calls and Priority 3 calls (P3) are less urgent than P2 calls. The current average response times, as well as the number of emergency and non-emergency response calls for the SPD, are displayed below in Tables 5.9-1 and 5.9-2.

Priority Level	2007	2008	2009	2010
Priority 2	0:07:50	0:06:49	0:07:08	0:08:16
Priority 3	0:10:12	0:08:51	0:08:49	0:09:39
Priority 4	0:20:32	0:17:48	0:16:35	0:18:39
Priority 5	0:26:16	0:21:20	0:19:56	0:21:51
Priority 6	1:52:04	1:30:03	1:01:14	1:06:31

Sources:
 City of Sacramento Police Department, Personal communication with Sergeant Chris Taylor, December 8, 2010.
 City of Sacramento Police Department. 2010 Annual Report, 2011.

Call Type	2006	2007	2008	2009	2010
911 Calls	160,431	182,631	181,472	179,332	181,140
7-digit Emergency & Non-emergency Calls	518,551	420,041	365,694	331,966	256,574

Sources:
 City of Sacramento Police Department, Personal communication with Sergeant Chris Taylor, December 8, 2010.
 City of Sacramento Police Department. 2010 Annual Report, 2011.

California Highway Patrol

The California Highway Patrol (CHP) responds to all traffic-related incidents in unincorporated Sacramento County. Additionally, the CHP responds to all incidents on State Highways, State-owned buildings, and State property within the City of Sacramento. The City of Sacramento is located within the CHP's Valley Division, which is comprised of 16 Area Offices, three Residential Posts, one Commercial Inspection Facility, one Transportation Management Center, and three Communications/Dispatch Centers. The total staff for the Valley Division includes 785 uniformed officers and 250 non-uniformed personnel. The area office closest to the proposed project site is the South Sacramento area office, located at 6 Massie Court, approximately 4.6 miles from the site.

Regional Transit Police Department

The Regional Transit Police Department is responsible for monitoring light rail stations, light rail trains, bus stops, buses, bus routes, regional transit riders, and other associated transit needs with regard to safety. In addition, the department also responds to crimes in progress, conducts criminal investigations, conducts Crime Prevention Through Environmental Design (CPTED) reviews, drafts policies, and provides security. Regional Transit police services are composed of officers from SPD and deputies from the Sacramento Sheriff's Department. A lieutenant with the

SPD is in command of Regional Transit police services, including the following police and security resources:

- Sacramento Police Department:
 - 1 Lieutenant;
 - 2 Sergeants; and
 - 20 Police Officers.
- Sacramento Sheriff's Department:
 - 1 Sergeant; and
 - 10 Deputies.
- Other:
 - 20 Regional Transit Officers;
 - 78 Private Security Guards;
 - 2 Administrative Staff; and
 - 1 Video Technician.

A statewide mutual aid system exists to ensure that adequate resources, facilities, and other support are provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities, but can give and receive help whenever needed. The SPD maintains mutual aid agreements as part of the statewide emergency response system, including memorandums of understanding (MOUs) with Regional Transit and school districts within the City, with the exception of Twin Rivers Unified School District, which employs its own police force.

Fire Protection

All fire and emergency service providers in the County of Sacramento have developed a Joint Powers Authority (JPA) in favor of a unified service area dispatch system. Under the JPA agreement, all emergency calls are routed through a central dispatch center. Therefore, the closest station to the emergency call location would provide services to that call.

Sacramento Fire Department (SFD)

The SFD provides fire protection services to a total service area of 146.3 square miles, including 99.2 square miles within the City of Sacramento and two contract areas that include 42.5 square miles of the Natomas Fire Protection District and 4.6 square miles of the Pacific Fruitridge Fire Protection District. Fire stations are strategically located throughout the City to provide assistance to area residents. Each fire station operates within a specific district that covers an approximately 1.5-mile geographical radius area around the station.

The SFD maintains 23 active fire stations and consists of 44 fire companies and medic units (23 engine companies, nine truck companies, and 12 medic units). Nine stations house both an engine and a truck company. An engine and truck require a four-person company, and two-person companies are required for each medic unit. The 456 sworn line employees in the Operations Division are organized into three platoons working in 24-hour shifts that are structured into a 48 hours on duty followed by a 96 hours off (48/96) duty pattern, which is a 56-hour work week. Each day the emergency response resources are organized into four battalions, each supervised by a Battalion Chief. The closest responding SFD company to the

project site is Station 60, which is located at 3301 Julliard Drive. Station 60 is within Battalion 2 and is staffed 24 hours a day, seven days a week by four firefighters and one fire engine, and is located approximately 1.5 miles from the proposed project site. The SFD currently has a Class 2 ISO rating within the project area, based on the type and extent of training provided to fire personnel, the SFD's existing water supply, and, if necessary, upgrades to the on-site water distribution system.

Response time goals for the first responding company, which is responsible for fire suppression and paramedic services, are to arrive within a four minute response time 90 percent of the time, and medic units are to arrive within eight minutes, 90 percent of the time. In the case of a fire, the goal is to have the first responding company arrive within a four-minute response time 90 percent of the time, and an additional 10 responders arrive within eight minutes, 90 percent of the time. Locating fire stations according to 1.5-mile radius service areas typically allows responders to arrive on a call within these response time goals. In more densely populated areas and where call volumes are higher and occur simultaneously, a shorter radius is necessary. According to the *SFD Annual Report 2009* Response Performance figure, the response time for the areas nearby the proposed project site are from three minutes to over five minutes. The SFD's estimated response time to the project site is four minutes, 45 seconds (Malaspino, SFD Fire Marshal, 2008). Medic units' dispatched to the scene arrived within eight minutes 83 percent of the time for all 911 calls in 2009.⁷

The SFD is divided into the following three divisions: the Office of the Fire Chief, the Office of Operations, and the Office of Administrative Services. The Office of the Fire Chief provides overall direction and management of the department including the following: organizing and directing overall operations; advocating for resources; promoting the Department's image; directing city-wide emergency services; and participation in media relations, fiscal services, and community outreach and education. Emergency response for the community is directed and managed by the Office of Operations. Firefighters provide quick and effective response to medical emergencies, fires, vehicle crashes, special rescues, hazardous material incidents, disasters, and many other types of emergencies. The Office of Operations also administers the fleet program. Administrative and support functions of the SFD, including fire prevention, training, technical services, facility planning, and human resources, are provided by the Office of Administrative Services.

In addition, the SFD has an Emergency Medical Services Division (EMS) and a Fire Prevention Division. The EMS Division provides paramedic transport services in the City of Sacramento, which includes the Advanced Life Support and Transportation Program. The Advanced Life Support and Transportation Program deploys 12 24-hour ambulances along with up to two additional flex ambulances during peak hours throughout the City and contracted areas. The EMS Division develops partnerships with local hospitals and community organizations in the prevention and review of infant, child, and elderly deaths, sexual assaults, domestic violence, and child and adult abuse. The Fire Prevention Division provides the community with a fire-safe environment through a variety of ongoing activities and operations and is responsible for fire investigations, new development review, weed abatement, and code enforcement.

It should be noted that the SFD is in the process of developing a Master Plan document to guide future operations and planning for the Department. The Master Plan would include an evaluation of the SFD's performance against best practices, evaluate opportunities to improve quality, and provide recommendations to accommodate future growth.

Sacramento Metropolitan Fire District (SMFD)

The SMFD consists of 16 former fire agencies that merged together. Fire protection, emergency services, search and rescue, public education, and training services are provided by the SMFD to a 417-square-mile area including unincorporated areas of Sacramento County, the cities of Rancho Cordova and Citrus Heights, and a small portion of Placer County. With 42 fire stations, with 36 engines and six trucks, and approximately 750 uniformed and support personnel, the SMFD is the seventh-largest fire district in California. The SMFD stations to the project area are Station 54 (8900 Fredrick Avenue, unincorporated Sacramento) and Station 62 (3646 Bradshaw Road, Rancho Cordova). Station 54 is staffed 24 hours a day, seven days a week by three firefighters and one fire engine, and is located less than half a mile north of the project site. Station 62 is also staffed 24 hours a day, seven days a week by five firefighters, one fire engine, and one medic (three firefighters staff the engine and two firefighters staff the medic unit), and is located approximately 3.5 miles east of the project site. The SMFD has an ISO Class 4 rating with hydrants in the area of the District near the project site.⁸

Emergency Services

The City and County of Sacramento have programs to facilitate emergency preparedness, both individually and jointly. The programs provide an overview of operational concepts, identify components of the County and City Emergency Management Organizations within the Standardized Emergency Management System, and describe the overall responsibilities of the federal, State, and local agencies for protecting life and property and assuring the overall well-being of the population. As stated previously, all fire and emergency service providers in the County of Sacramento have developed a JPA in favor of a unified service area dispatch system. Under the JPA agreement, all emergency calls are routed through a central dispatch center. Therefore, the closest station to the emergency call location would provide services to that call.

City of Sacramento

The City's Office of Emergency Services (OES) provides comprehensive emergency management services for the City of Sacramento, including coordination of City-wide preparedness, planning, response, recovery, and mitigation activities. It is the mission of OES to prepare City government and the community for potential natural, human-caused, and technological emergencies.

The City of Sacramento implements a Multi-Hazard Emergency Plan addressing the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and nuclear defense operations for areas within the City's jurisdictional boundaries. The Plan provides operational concepts related to various emergency situations, identifies components of the local emergency management organization, and describes the City's overall responsibilities for protecting life and property during an emergency. The plan also identifies possible sources of outside support (through mutual aid and specific statutory authorities) from other jurisdictions, and the private sector. In all disaster situations, the emergency plan will be implemented in three periods, with related phases as time and circumstances permit. The Pre-Emergency Periods, Emergency Periods, and Post-Emergency Periods are all designed to deal with the events leading up to and following an extraordinary emergency situation. In addition, guidelines are set out for peacetime emergencies, wartime emergencies, and a standardized emergency management system.

Statewide, California's mutual aid system ensures that adequate resources, facilities, and other support are provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities, but can give and receive help whenever needed. State government provides available resources to assist local jurisdictions in emergencies. To facilitate coordination of the mutual aid, the State has been divided into six OES Mutual Aid Regions (and three administrative regions). The City of Sacramento is in Mutual Aid Region IV. Through this mutual aid system, State OES can receive a constant flow of information from every geographic and organizational area of the State. This includes direct notification for a State agency or department or from a local government official that a disaster exists or is imminent. In some cases, the mutual aid system allows for the possibility to anticipate an emergency and mitigate effects thereof by accelerated preparations, or perhaps, prevent a situation from developing to disaster proportions.

To further facilitate the mutual aid process, particularly during day-to-day emergencies involving public safety agencies, Fire and Rescue Law Enforcement Coordinators have been selected and function at the Operational Area (county-wide), Mutual Aid Region (two or more counties), and State (OES) level.

County of Sacramento

The County of Sacramento has implemented a Multi-Hazard Mitigation Plan, which aims to reduce or eliminate long-term risk to people or property from natural disasters. Because the Multi-Hazard Mitigation Plan is a multi-jurisdictional plan, the City and areas outside of the City, but within the County are protected under the plan.

An Emergency Operations Center (EOC) is provided to the area to obtain centralized emergency management during a major emergency or disaster. The county-wide central location of authority and information allows for face-to-face coordination among personnel and facilitates a coordinated response by staff and representatives from departments in charge of emergency management in the City. The following functions are performed in the EOC, as necessary:

- Receiving and disseminating warning.
- Managing emergency operations.
- Developing emergency response and recovery policies.
- Collecting intelligence from, and disseminating information to, the various EOC representatives, and assuring coordination between the Field Operations Center locations, building managers and departmental safety representatives throughout the regional system. In addition, as appropriate, coordinate information with the Governor's OES, the Federal Emergency Management Agency (FEMA), and other appropriate outside agencies.
- Preparing intelligence/information summaries, situation reports, operation progress reports and other reports as required; preparing the incident action plan.
- Maintaining general and specific maps, information display boards and other data pertaining to emergency operations, the status of regional building and sites.
- Continuing analysis and evaluation of all data pertaining to emergency operations.
- Controlling and coordinating, within established policy, the operations and logistical support of resources committed to City/County Departments.

An Emergency Services Officer coordinates with the City's OES, which is responsible for disaster planning. The Emergency Services Officer is responsible for the readiness of the primary and alternate EOC locations. Readiness includes adequate communications, staff and team training, and EOC support such as logistics, displays, and proper documentation procedures. Generally, the EOC will be activated under any of the following conditions:

- An earthquake causing widespread damage;
- A Hazardous Material Incident affecting a portion of the City of Sacramento;
- A major flood affecting the City of Sacramento and surrounding areas; or
- An emergency situation that has occurred or might occur that is of such a magnitude that a large commitment of City of Sacramento or Sacramento County resources is required over an extended period of time to control or mitigate.

The EOC can be activated and staffed to the extent deemed necessary to deal with the existing or impending emergency. The level of activation necessary is determined by the Director of Emergency Services. This activation takes place upon consideration of initial damage assessment reports and demand for services. Three levels of activation exist, including the following: a Level I Disaster, which is normal operations, where normal day-to-day emergency operations and resources are adequate to handle the incident; a Level II Disaster, which requires partial EOC activation, where an incident involves more than two major City departments; and a Level III Disaster, which requires full EOC activation, where a disaster needs the Emergency Management Team in the City's EOC to coordinate policies and mitigation measures to keep from loss of life and property.

Emergency Care Facilities

Seven private hospitals exist within the City of Sacramento that serve the region, all of which are designed and equipped to handle multiple, simultaneous patients during everyday activities and emergency situations. Kaiser South is currently undergoing an expansion that would increase the size of the medical center by approximately one third and qualify the hospital to serve as a Level II trauma center. Mercy General Hospital has plans to expand and construction is scheduled for completion in 2012. Sutter General recently expanded their midtown campus to include a Women's and Children's Center and medical offices. Sutter Memorial services are being consolidated onto the Sutter General campus. As a result, Sutter Memorial will be demolished or sold and used for other purposes once expansion construction at Sutter General is complete. The UC Davis Medical Center is the only Level I trauma center in the region.

Schools

More than 140 public schools within nine school districts serve the Sacramento area. The proposed project would be within the Elk Grove Unified School District (EGUSD) service area, which covers the southern portion of the City's General Plan Policy Area. More than 62,000 students attend the 64 EGUSD schools, which include nine high schools, nine middle schools, and forty elementary schools, as well as alternative education schools and an online academy. In addition, the District utilizes approximately 900 portable classrooms. The proposed project is located within the assignment areas of Sierra Enterprise Elementary, Katherine Albiani Middle School, and Pleasant Grove High School. Sierra Enterprise Elementary School was modernized extensively in 1999, and Katherine Albiani Middle School and Pleasant Grove High School were constructed in 2005.

Schools within the EGUSD are currently operating at or above capacity and are not adequate to meet the current student population. The current student capacity and enrollment statistics for the EGUSD are provided in Table 5.9-3.

Grade Level	Facilities Capacity	2009-2010 Enrollment	Excess Capacity or Capacity Needed
K-6	25,589	32,227	None (6,638)
7-8	9,547	9,813	None (266)
9-12	18,704	19,047	None (343)
SDC Non-severe	962	252	710
SDC Severe	315	1,497	None (1,182)

Source: Elk Grove Unified School District, School Facilities Needs Analysis, 2011.

Libraries

The Sacramento Public Library is a joint powers agency between the cities of Sacramento, Citrus Heights, Elk Grove, Galt, Isleton, and Rancho Cordova and the County of Sacramento. The Sacramento Public Library serves residents of each of these cities and the County and operates 27 branches. The Sacramento Public Library currently has 257,549 square feet of library space within the City of Sacramento. All residents of Sacramento County have access to all library branches and bookmobiles.

The main branch is the Central Library, located in downtown Sacramento at 8th and I streets. Nearly 300,000 volumes and more than 1,000 periodical subscriptions are kept at the Central Library. Special collections on California and Sacramento history, local authors, and the history of the Central Library are kept in the Sacramento Room. The Tsakopoulos Library Galleria provides a 5,400-square-foot space available for a variety of events, including weddings, meetings, seminars, parties, receptions, fund raisers, or trade shows.

Libraries operated by other entities are also located in the City, such as the California State Library in Sacramento, which is operated by the State. Two locations exist, the Stanley Mosk Library and Courts Building at 9th and Capitol Streets and the Library and Courts II Building at 9th and N Streets, both in downtown Sacramento. The State Library provides reference services, on-site use of collections, California history information, genealogy resources, Braille and recorded books, a directory of libraries, and internet access. Circulating materials are loaned out to the public through local libraries. Services to the State government, local governments, and local libraries are also provided by the State Library.

Major improvements are planned throughout the Sacramento Public Library system to expand and renovate existing branches and construct new library branches through 2025. The Sacramento Public Library Facility Master Plan 2007-2025 outlines current deficiencies and projected needs through 2025. Within the City of Sacramento, two new libraries – North Natomas and Pocket-Greenhaven – have been constructed and the Valley Hi-North Laguna branch has been relocated. Several projects are planned for 2005-2015 including the renovation of the Central Library, the relocation of the North Sacramento-Hagginwood Library, the renovation of the McClatchy and McKinley Libraries, and the construction of the new 65th and

Folsom Library. Projects expected to occur between 2015 and 2025 include the expansion of the Colonial Heights, Belle Cooledge, Martin Luther King, Jr., and South Natomas Libraries as well as the relocation of the Del Paso Heights Library. The Colonial Heights Library is currently accommodating the residents of the Fruitridge area. The new 65th and Folsom library facility has been planned to accommodate growth in the eastern portion of the City of Sacramento area.

5.9.2 REGULATORY BACKGROUND

Federal Regulations

The following are regulations pertaining to public services that are implemented on a federal level.

Federal Emergency Management Agency

In March 2003, FEMA became part of the U.S. Department of Homeland Security. FEMA's continuing mission within the new department is to lead the effort to prepare the nation for all hazards and effectively manage federal response and recovery efforts following any national incident. FEMA also initiates proactive mitigation activities, trains first responders, and manages the National Flood Insurance Program and the U.S. Fire Administration.

Disaster Mitigation Act of 2000

In 2000, the Disaster Mitigation Act was signed into law to amend the Robert T. Stafford Disaster Relief Act of 1988. Among other things, the new legislation reinforces the importance of pre-disaster infrastructure mitigation planning to reduce disaster losses nationwide, and is aimed primarily at the control and streamlining of the administration of federal disaster relief and programs to promote mitigation activities. Some of the major provisions of the Disaster Mitigation Act of 2000 include the following: funding for pre-disaster mitigation activities; developing experimental multi-hazard maps to better understand risk; establishing State and local government infrastructure mitigation planning requirements; defining how states can assume more responsibility in managing the Hazard Mitigation Grant Program (HMGP); and adjusting ways in which management costs for projects are funded. Mitigation planning provisions are outlined in Section 322 of the Act, which establishes performance based standards for mitigation plans and requires states to have a public assistance program to develop county government plans. The consequence of failure to develop an infrastructure mitigation plan is the chance of a reduced federal share of damage assistance from 75 percent to 25 percent if the damaged facility has been damaged on more than one occasion in the preceding 10-year periods by the same type of event.

State Regulations

The following are regulations pertaining to public services that are implemented on a State level.

Fire Protection

Uniform Fire Code

The Uniform Fire Code 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 Code 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, include regulations for building standards (as also set forth in the California Building Code), and fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment", the California Occupational Safety and Health Administration (Cal OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hosing sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all fire fighting and emergency medical equipment.

Schools

California Education Code

The California Code of Regulations (CCR), Title 5, Education Code governs all aspects of education within the State. The California Education Code authorizes the California Department of Education to develop site selection standards for school districts which require districts to select a site that conforms to certain net acreage requirements established in the Department's 2000 "School Site Analysis and Development" guidebook. The Guide includes the assumption that the land purchased for school sites will be in a ratio of approximately 2:1 between the developed grounds and the building area. If the "availability of land is scarce and real estate prices are exorbitant" the site size may be reduced. Department policy states that if a school site is less than the recommended acreage required, the district shall demonstrate how the students will be provided an adequate educational program including physical education as described in the district's adopted course of study. Through careful planning, a reduced project area school site could follow the recent trend of school downsizing and meet the Department's criteria.

California State Assembly Bill 2926 – School Facilities Act of 1986

In 1986, AB 2926 was enacted by the State of California authorizing entities to levy statutory fees on new residential and commercial/industrial development in order to pay for school facilities. AB 2926, entitled the "School Facilities Act of 1986," was expanded and revised in 1987 through the passage of AB 1600, which added Section 66000 et seq. of the Government Code.

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) is a school construction measure authorizing the expenditure of State bonds totaling \$9.2 billion through 2002, primarily for modernization and rehabilitation of older school facilities and construction of new school facilities. \$2.5 billion is for higher education facilities and \$6.7 billion is for K-12 facilities. Proposition 1A/SB 50 implemented the following significant fee reforms by amending the laws governing developer fees and school mitigation:

- Establishes the base (statutory) amount (indexed for inflation) of allowable developer fees at \$1.93 per square foot for residential construction and \$0.31 per square foot for commercial construction.
- Prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess of or in addition to those provided in the statute.
- Suspends for a period of at least eight years (2006) a series of court decisions allowing cities and counties to deny or condition development approvals on grounds of inadequate school facilities when acting on certain types of entitlements.

Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any “[...] legislative or adjudicative act [...] involving [...] the planning, use, or development of real property” (Government Code 65996(b)). Additionally, a local agency cannot require participation in a Mello-Roos for school facilities; however, the statutory fee is reduced by the amount of any voluntary participation in a Mello-Roos. Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be “full and complete mitigation.” The law identifies certain circumstances under which the statutory fee can be exceeded, including preparation and adoption of a “needs analysis,” eligibility for State funding, and satisfaction of two of four requirements (post-January 1, 2000) identified in the law including year-round enrollment, general obligation bond measure on the ballot over the last four years that received 50 percent plus one of the votes cast, 20 percent of the classes in portable classrooms, or specified outstanding debt. Assuming a district qualifies for exceeding the statutory fee, the law establishes ultimate fee caps of 50 percent of costs where the State makes a 50 percent match, or 100 percent of costs where the State match is unavailable. District certification of payment of the applicable fee is required before the City or County can issue the building permit.

Proposition 55

Proposition 55 is a school construction measure passed in 2004 authorizing the sale of approximately \$12.3 billion in bonds to fund qualified K-12 education facilities to relieve overcrowding and to repair older schools. Funds target areas of the greatest need and must be spent according to strict accountability measures. These bonds would be used only for eligible projects. Approximately 10 billion dollars would be allocated to K-12 schools, with the remaining 2.3 billion allocated to higher education facilities.

Department of Education Standards

The California Department of Education published the Guide to School Site Analysis and Development to establish a valid technique for determining acreage for new school development. Rather than assigning a strict student-to-acreage ratio, the guide provides flexible formulas that permit each district to tailor ratios as necessary to accommodate individual

conditions. The Department of Education also recommends that a site utilization study be prepared for the site based on these formulas.

Emergency Services

Office of Emergency Services

Title 19, Chapters 1 through 6, of the California Code of Regulations (CCR) establishes regulations related to emergency response and preparedness under the OES. The OES serves as the lead State agency for emergency management. OES coordinates the State response to major emergencies in support of local government. The primary responsibility for emergency management resides with local government. Local jurisdictions first use their own resources and, as they are exhausted, obtain more from neighboring cities and special districts, the county in which they are located, and other counties throughout the State through the Statewide Mutual Aid System. In California, the Standardized Emergency Management System (SEMS) provides the mechanism by which local government requests assistance. OES is the lead agency for mobilizing and obtaining State and federal resources, overseeing the mutual aid system, and, during an emergency, coordinating response efforts. In addition, during an emergency, the OES is responsible for collecting, verifying, and evaluating information about the emergency, facilitating communication with local government and providing affected jurisdictions with additional resources when necessary. If necessary, OES may task State agencies to perform work outside their day-to-day and statutory responsibilities.

Local Regulations

The following are regulations pertaining to public services that are implemented on a local level.

Sacramento 2030 General Plan

Public Health and Safety: Police Services

Goal PHS 1.1 Crime and Law Enforcement. Work cooperatively with the community, regional law enforcement agencies, local government and other entities to provide quality police service that protects the long-term health, safety and well-being of our city, reduce current and future criminal activity, and incorporate design strategies into new development.

Policy PHS 1.1.2 Response Time Goals. The City shall strive to maintain appropriate and acceptable response times for all call priority levels in order to provide adequate police protection services for the safety of all city residents and visitors.

Policy PHS 1.1.3 Staffing Standards. The City shall maintain optimum staffing levels for both sworn police officers and civilian support staff in order to provide quality police services to the community.

Policy PHS 1.1.4 Timing of Services. The City shall ensure that police facilities and services will keep pace with all development and growth in the city.

- Policy PHS 1.1.5 Distribution of Facilities. The City shall expand the distribution of police substation type facilities to allow deployment from several smaller facilities located strategically throughout the city, and provide facilities in underserved and new growth areas in order to provide appropriate response to all city residents.
- Policy PHS 1.1.7 Development Review. The City shall continue to include the Police Department in the review of development projects to adequately address crime and safety, and promote the implementation of Crime Prevention through Environmental Design principles.
- Policy 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.
- Policy PHS 1.1.12 Cooperative Delivery of Services. The City shall work with local, State, and Federal criminal justice agencies to promote regional cooperation in the delivery of services.

Public Health and Safety: Fire Services

Goal PHS 2.1 Fire Protection and Emergency Medical Services. Provide coordinated fire protection and emergency medical services that support the needs of Sacramento residents and businesses and maintains a safe and healthy community.

- Policy PHS 2.1.2 Response Time Standards. The City shall strive to maintain appropriate emergency response times to provide optimum fire protection and emergency medical services to the community.
- Policy PHS 2.1.3 Staffing Standards. The City shall maintain optimum staffing levels for sworn, civilian, and support staff, in order to provide quality fire protection and emergency medical services to the community.
- Policy PHS 2.1.4 Response Units and Facilities. The City shall provide additional response units, staffing, and related capital improvements, including constructing new fire stations, as necessary, in areas where a company experiences call volumes exceeding 3,500 in a year to prevent compromising emergency response and ensure optimum service to the community.
- Policy PHS 2.1.5 Timing of Services. The City shall ensure that the development of fire facilities and delivery of services keeps pace with development and growth of the city.

- Policy PHS 2.1.6 Strategic Locations of New Stations. The City shall ensure that new fire station facilities are located strategically throughout the city to provide optimal response times to all areas.
- Policy PHS 2.1.7 Future Station Locations. The City shall require developers to set aside land with adequate space for future fire station locations in areas of new development.
- Policy PHS 2.1.8 Co-Location of Facilities. The City shall co-locate fire facilities with other City facilities to promote efficient use of space and provision of fire protection and emergency medical services within dense, urban portions of the city.
- Policy PHS 2.1.10. Regional Cooperative Delivery. The City shall work with the various fire protection districts and other agencies in establishing inter-operability and to promote regional cooperative delivery of fire protection and emergency medical services.
- Policy 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.
- Goal PHS 2.2 Fire Prevention Programs and Suppression. The City shall deliver fire prevention programs that protect the public through education, adequate inspection of existing development, and incorporation of fire safety features in new development.
- Policy PHS 2.2.2 Development Review for New Development. The City shall continue to include the Fire Department in the review of development proposals to ensure projects adequately address safe design and on-site fire protection and comply with applicable fire and building codes.
- Policy PHS 2.2.3 Fire Sprinkler Systems. The City shall promote installation of fire sprinkler systems for both commercial and residential use and in structures where sprinkler systems are not currently required by the City Municipal Code or Uniform Fire Code.
- Policy 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.

Education, Recreation, and Culture: Education

Goal ERC 1.1 Efficient and Equitable Distribution of Facilities. Provide efficient and equitable distribution of quality educational facilities for life-long learning and development of a highly-skilled workforce that will strengthen Sacramento's economic prosperity.

Policy ERC 1.1.1 School Locations. The City shall work with school districts at the earliest possible opportunity to provide school sites and facilities that are located in the neighborhoods they serve.

Policy ERC 1.1.2 Locational Criteria. The City shall continue to assist in reserving school sites based on each school district's criteria and on the City's following location criteria:

- Locate elementary schools on sites that are safely and conveniently accessible and away from heavy traffic, excessive noise, and incompatible land uses.
- Locate school sites centrally with respect to their planned attendance areas.
- Locate school sites in areas where established and/or planned walkways, bicycle paths, or greenways link school sites with surrounding uses.
- Locate, plan, and design new schools to be compatible with adjoining uses.

Education, Recreation, and Culture: Libraries

Goal ERC 3.1 Adequate Library Facilities. Provide adequate library facilities that enhance Sacramento's quality of life and create a civic environment with vast opportunities for self-learning and cultural and academic enrichment.

Policy ERC 3.1.1 Adequate Services and Facilities. The City shall ensure adequate library services and facilities are maintained for all residents.

Policy ERC 3.1.3 Under-Served Areas. The City shall give priority to the construction of new libraries in communities that are experiencing library service deficiencies including the Pocket area, East Sacramento near 65th Street and Folsom Boulevard, North Highlands, and the South Area Community Plan area.

Sacramento City Code

Section 8.100.540 of the Sacramento City Code states that all buildings or portions thereof shall be provided with the degree of fire resistive construction as required by the California Building Code for the appropriate occupancy, type of construction and location on property or in fire

zone; and shall be provided with the appropriate fire-extinguishing systems or equipment required by the California Building Code. Chapter 15.36 includes numerous codes relating to the inspection and general enforcement of the City of Sacramento fire code, control of emergency scenes, permits, general provisions for safety, fire department access, equipment, and protection systems, and many standards for fire alarm systems, fire extinguisher systems, commercial cooking operations, combustible materials, heat producing appliances, exit illumination, emergency plans and procedures, and so on.

City of Sacramento Multi-Hazard Emergency Plan

The Emergency Plan addresses the City of Sacramento's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and nuclear defense operations. It provides operational concepts related to various emergency situations, identifies components of the local emergency management organization, and describes the City's overall responsibilities for protecting life and property during an emergency. The plan also identified possible sources of outside support (through mutual aid and specific statutory authorities) from other jurisdictions, and the private sector.

Sacramento Public Library Authority Facilities Master Plan

The Sacramento Public Library Authority Facility Master Plan (FMP) contains the following Guiding Principles designed to support SPL customers:

- Libraries recognize the needs of different communities;
- Libraries recognize the needs of a diverse population;
- Libraries add value to the community;
- Libraries are prime real estate;
- Libraries are easy for customers to use;
- Library space is flexible;
- Libraries recognize the value of community partners; and
- Library design promotes staff efficiency and effectiveness.

The Sacramento Public Library Authority FMP also contains service standards in a tiered three level approach. The three levels are Threshold, Target, and Prime. The Threshold standard would be used to evaluate current library services available to residents of the specific service area. As individual communities move forward in planning their specific service goals and the facilities required to provide those services, they would select from Threshold, Target, or Prime to tailor their building program.

5.9.3 IMPACTS AND MITIGATION MEASURES

This section evaluates the project's potential impacts to existing public services.

Standards of Significance

For the purposes of this EIR, an impact to public services would be considered significant if the project would result in the need for new or altered services related to fire protection, police protection, school facilities, libraries, or other governmental services beyond what was anticipated in the 2030 General Plan.

Method of Analysis

The following section evaluates the impacts the proposed project would have on existing public services if the project, as currently proposed, were approved and implemented. Impact significance is determined by comparing project conditions to the existing conditions, using the above significance criteria. The general methodology employed is based on information provided in the *Sacramento 2030 General Plan* and the *Sacramento 2030 General Plan MEIR*.

Project-Specific Impacts and Mitigation Measures

5.9-1 Increase in demand for law enforcement services.

A majority of the proposed project is already within the City and is currently being served by the SPD. However a small portion in the western area of the proposed project site is not currently within City limits and would be annexed into the City as part of the proposed project. Reorganization of service boundaries from the County to the City would result in a loss of property tax and future sales tax revenue for the County. The Sheriff's Department and CHP would not provide law enforcement service to the proposed project area, unless an incident occurred on a State Highway or on State owned property. A Property Tax Exchange Agreement between the County and the City would maintain and not significantly reduce funding for the County. The County Sheriff's Department services would not be substantially affected without the annexation area in their service boundaries.

As stated above, the SPD currently provides police service to a majority of the proposed project site. Upon annexation, the western portion of the site would be served by the SPD. According to the SPD, in order to meet the needs of the population increase from the proposed project with the desired ratio of 2.5 officers per 1,000 residents, the SPD would need to add approximately 8.8 sworn police officer positions, and 4.4 civilian support staff positions. The current functional ratio of patrol cars is two patrol cars for every three patrol officers. Therefore, 8.8 additional patrol officers would require 6 additional patrol cars.

Although development of the proposed project would increase the need for higher levels of law enforcement, including additional staffing and vehicles, construction of additional police facilities would not be necessary. Tax revenues generated by the residential and commercial uses proposed by the project, such as property tax, sales tax, Measure A tax, utility tax, and occupancy tax, would generate significant revenues to the City which would contribute to, and aid in, providing funds for public services.

According to the *Sacramento 2030 General Plan MEIR*, compliance with the City's General Plan various goals and policies related to police services would ensure that a less-than-significant impact occurs. Such policies include Policy PHS 1.1.8, which requires that development projects contribute their fair share of funds for police protection services and facilities, and Policy 1.1.7, which requires that the project be subject to a development review to address crime and safety design. Payment of development fees would fund the additional services required for the proposed project as well as contribute to funding for facilities and services that have been identified by the SPD as needed for services in the future. Fee amounts would be determined upon development review and would be enforced per Sacramento City Code Chapter 15.08

prior to the issuance of the proposed project's building permits. Payment of fees would ensure compliance with the City's General Plan goals and policies, resulting in a **less than significant** impact to police protection and services, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
None required.

5.9-2 Increase in demand for fire protection and emergency services.

A majority of the proposed project is already within the City and is currently being served by the SFD. However a small portion in the western area of the proposed project site is not currently within City limits and would be annexed into the City as part of the proposed project. Upon annexation, the western portion of the site would be served by the SFD as well. All fire and emergency service providers in the County of Sacramento have developed a Joint Powers Authority in favor of a unified service area dispatch system. Under the JPA agreement, all emergency calls are routed through a central dispatch center. Therefore, the closest station to the emergency call location would provide services to that call. The SFD's Julliard Station (Station #60), located north of the project area at 3301 Julliard Drive, currently serves the project site. The Station is staffed 24 hours a day, seven days a week by four firefighters and one fire engine, and is located approximately 1.5 miles from the project site. The SFD's estimated response time to the project site is four minutes and 45 seconds. The closest SMFD stations to the project area are Stations 54 and 62. Station 54 is staffed 24 hours a day, seven days a week by three firefighters and one fire engine, and is located less than half a mile north of the project site. Station 62 is also staffed 24 hours a day, seven days a week by five firefighters, one fire engine, and one medic (three firefighters staff the engine and two firefighters staff the medic unit), and is located approximately 3.5 miles east of the project site. SMFD's estimated response time to the project site is three minutes and 38 seconds.

Development within the project area would increase the demand for higher levels of fire protection and emergency services, including additional staffing and vehicles, but would not necessitate the construction of additional facilities. Upon annexation of the western portion of the site, a Tax Exchange Agreement would generate funds for SFD, allowing the provision of adequate services. In addition, the City's annual budget allocates a certain percentage of the City's General Fund toward police and fire services. The proposed project would generate significant revenues to the City through property tax, sales tax, Measure A tax, utility tax, and occupancy tax. The project's tax revenues would contribute to the City's General Fund, and would thereby contribute to fire and emergency services.

According to the *Sacramento 2030 General Plan MEIR*, implementation of the City's General Plan fire-related goals and policies would result in a less-than-significant impact. Such policies include the following: Policy PHS 2.1.11, which requires payment of a development impact fee for fire protection facilities and services; and Policies PHS 2.2.3 and PHS 2.2.4, which require that the project design be subject to review and approval by the SFD to ensure that all proposed project buildings include adequate fire protection equipment and infrastructure, such as fire sprinkler systems, as required by the California Fire Code. The SFD would provide any additions and/or modifications to be

incorporated into the proposed fire systems necessary to ensure that the proposed project adequately addresses safe design and on-site fire protection in compliance with applicable fire and building codes, including the California Fire Code. Compliance with the City’s General Plan policies is enforced by Sacramento City Code Chapter 15.08, which requires that the payment of development impact fees, a Fire Department Inspection Fee to offset costs to review plans and supervise installation of, and periodic testing of, state mandated life safety systems, as well as any other fire-related fees, as determined upon development review, are paid prior to the issuance of the proposed project’s building permits. Because the proposed project would comply with the various fire-related goals and policies of the City’s General Plan, impacts related to fire protection and emergency services would be considered **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.9-3 Increase in the number of students attending schools in the area.

The proposed project includes development of residential units that would generate additional demand for school facilities including the following: 482 single-family units, 378 multi-family units, and 315 residential mixed-use units. For the purposes of the analysis the EGUSD single-family, multi-family, and condo unit generation rates were used to estimate the number of students expected to be generated by the proposed project. Student generation estimates for the proposed project are presented in Table 5.9-4, below.

Grade Level	Single Family Units	Multi-Family Units	Condo Units	Total Estimated Enrollment
	Generation Rate/ Estimated Enrollment	Generation Rate/ Estimated Enrollment	Generation Rate/ Estimated Enrollment	
Elementary (K-6)	0.3764 / 181	0.2684 / 102	0.10637 / 33	316
Middle School (7-8)	0.0867 / 42	0.0838 / 32	0.0349 / 11	85
High School (9-12)	0.1863 / 90	0.1138 / 43	0.0814 / 26	159
Total (K-12)	0.6494 / 313	0.4840 / 183	0.2226 / 70	566

Source: School Facilities Needs Analysis, Elk Grove Unified School District, 2010.

As shown in Table 5.9-4, the proposed project would be expected to generate 566 additional students, the majority of which are assumed to attend schools within the EGUSD. As stated previously in this chapter, schools within the EGUSD currently

operate at or above capacity, thus, are unable to accommodate the additional students generated by the proposed project. However, the proposed project includes the construction of a new elementary school and would utilize portable buildings to increase the capacity of existing schools as much as possible. Construction of a new elementary school and use of portable buildings would help to accommodate the additional students, as well as alleviate some of the demand for school services within the EGUSD. In cases where a school's capacity is exceeded, students may be redirected to other schools in the district and bussing services would be provided if necessary.

Pursuant to SB 50, the project applicant would be required to pay school impact fees. As indicated in SB 50, payment of school impact fees is considered full mitigation for any impacts to school services that would result from a project. Currently, the school development fee is \$4.32 per square foot of new residential development. Payment of the development fee would provide funding for school facilities construction, improvements, and expansion. Therefore, without the payment of development fees, the EGUSD would not be able to accommodate the increase in students, and development of the proposed project would be considered a **potentially significant** impact to school services.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less than significant* level because satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation."

5.9-3 *Prior to the issuance of building permits, the applicant(s) shall be required to pay all applicable school impact fees in effect at the time of building permit issuance. Payment shall be ensured by the Community Development Department.*

5.9-4 Increase in demand for library services.

The Sacramento Public Library Joint Powers Authority provides library services to the area and has sufficient capacity to adequately serve the project area. The Colonial Heights Library Branch currently serves the project site and the surrounding area. In addition, the Joint Powers Authority has designed and planned a library to accommodate growth in the eastern portion of the City of Sacramento area and would serve any additional future needs of the Aspen 1 site.

In November 2004, Sacramento voters approved Measure X, an initiative to continue a parcel tax. The parcel tax provides the library with 30 percent of its operating revenues. The proposed project would be required to participate in the annual Library Fund assessments and residential units in the project area would be subject to Measure X. Although the project would cause an increase in demand for library facilities in the area, the existing and planned facilities would be adequate to accommodate the increase in demand. Therefore, impacts are considered to be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

5.9-5 Long-term impacts to public services and facilities from the proposed project in combination with existing and future developments in the Sacramento area.

Implementation of the proposed project would contribute towards a cumulative increase in demand for public services within the City of Sacramento. According to the General Plan, new public services personnel and facilities would be required for General Plan buildout conditions. The increase in the demand for service within City of Sacramento have been evaluated in the General Plan Master EIR, which concluded that cumulative impacts to public services would be less-than-significant with implementation of City goals and policies that ensure availability of adequate services for buildout.

Development of the proposed project would generate an incremental increase in demand for public services and facilities. As demonstrated in this Draft EIR, the proposed project would comply with all applicable City goals and policies, including payment of development impacts fees. Therefore, the proposed project's incremental contribution to the cumulative impact to public services, which was identified as less-than-significant in the General Plan Master EIR, would be less than cumulatively considerable. Furthermore, future development projects would be required by the City to pay their fair share fees toward the expansion and creation of public services and facilities. Therefore, the proposed project would have a **less than significant** cumulative impact, and the project would not create cumulative impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Endnotes

¹ City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

² City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

³ City of Sacramento. *Aspen 1 Municipal Service Review*. March 2009.

⁴ Local Service Provider References: 1) City of Sacramento Police Department. Personal communication with Sergeant Pat Keller. April 5, 2012; and 2) Elk Grove Unified School District. Personal communication with Kim Williams. March 30, 2012.

⁵ Sacramento County Sheriff's Department. *Sheriff's Budget Fiscal 2011/2012*. May 2011.

⁶ City of Sacramento Police Department. Personal communication with Sergeant Pat Keller. April 5, 2012.

⁷ Sacramento Fire Department. *Annual Report 2009*. 2010.

⁸ Sacramento Metropolitan Fire District. Personal communication with Russel Blair. April 3, 2012.

5.10 TRANSPORTATION AND CIRCULATION

5.10

TRANSPORTATION AND CIRCULATION

The following chapter was prepared by DKS Associates under contract with the City of Sacramento. The technical traffic appendices are available for review at the City, upon request.

5.10.0 INTRODUCTION

The Transportation and Circulation chapter of the EIR discusses existing and cumulative transportation and circulation conditions associated with the Aspen 1-New Brighton project (proposed project). The analysis includes consideration of automobile traffic impacts on roadway capacity, transit impacts, bicycle impacts, parking impacts, construction impacts, and pedestrian impacts. Quantitative transportation analyses were conducted for the following scenarios:

- Existing (without project);
- Existing Plus Project;
- Existing Plus No School Alternative;
- Cumulative (no project);
- Cumulative Plus Project; and
- Cumulative Plus No School Alternative.

This Transportation and Circulation chapter, prepared by DKS Associates, addresses impacts identified in the analysis.

Project Description

As illustrated in Figure 5.10-1, the project site is located south of US 50 at the eastern edge of the City of Sacramento. The site is located at the southwest corner of Jackson Road and South Watt Avenue. Figure 5.10-2 illustrates the proposed access point locations and intersection control plan. In addition, the project would include the realignment of 14th Avenue in the northwestern portion of the site.

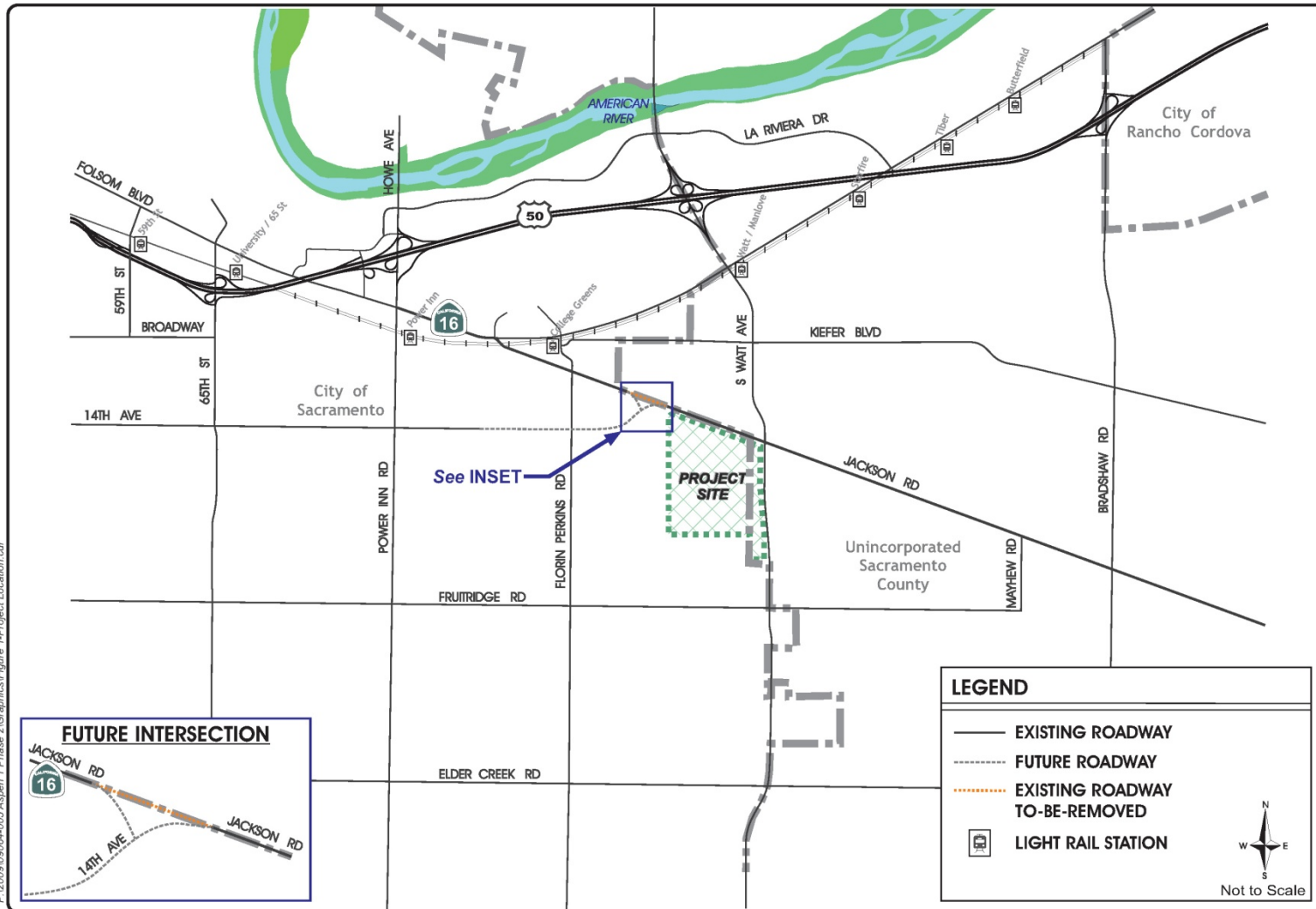
The project consists of residential, office, retail, and educational land uses, as described in “Project Land Use and Circulation” later in this chapter.

Access to the site is proposed via three signalized and five unsignalized right-in, right-out intersections with Jackson Road and South Watt Avenue.

5.10.1 EXISTING ENVIRONMENTAL SETTING

The existing roadway, transit, bicycle, and pedestrian transportation systems within the study area are described below. Figure 5.10-1 illustrates the roadway system near the project site.

**Figure 5.10-1
 Project Location**

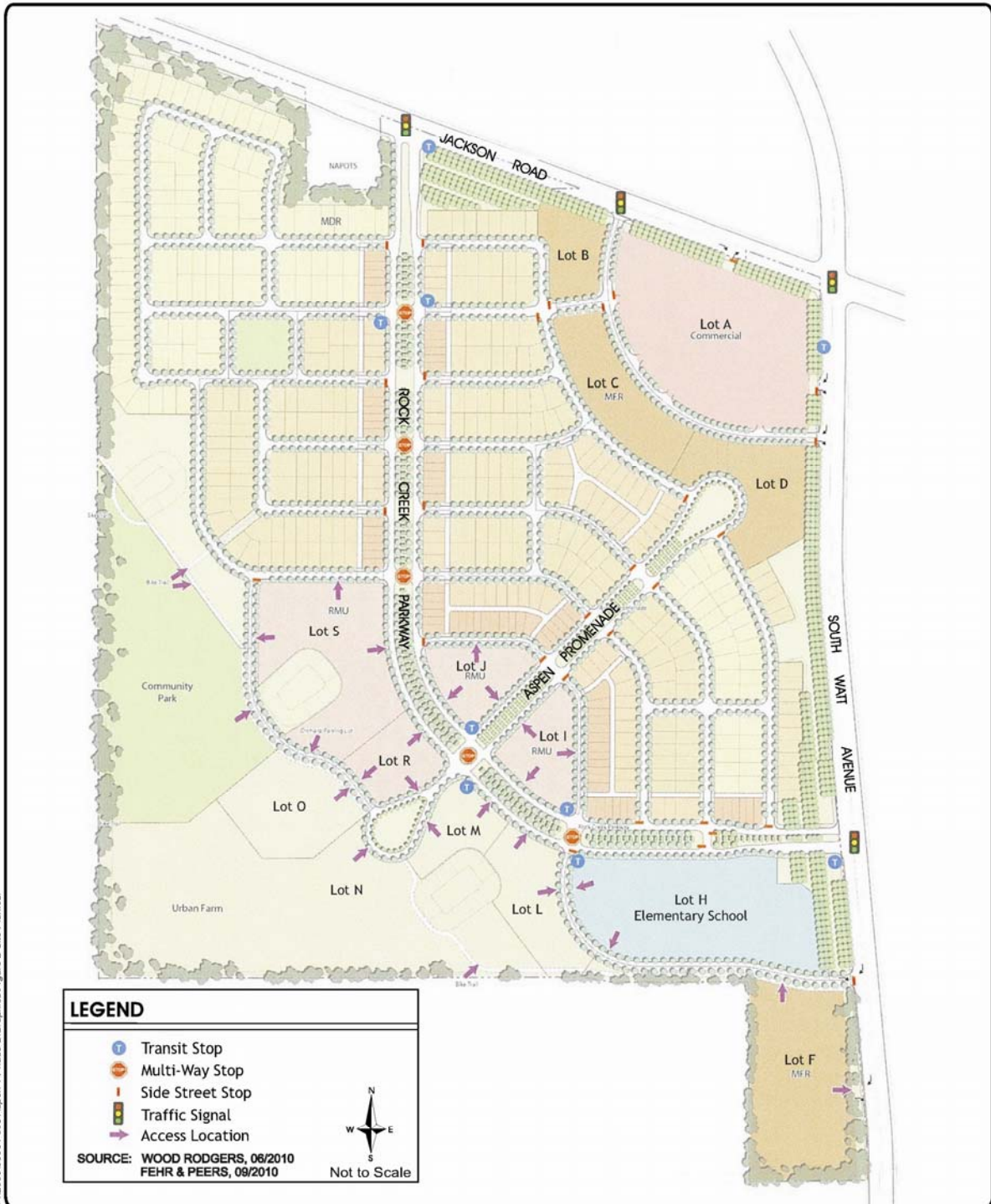


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**FIGURE 5.10-1
 PROJECT LOCATION**

Figure 5.10-2
 Site Plan



Roadway System – Regional Access

Regional automobile access to the site is provided by the freeway system. U.S. Highway 50 (US 50) is an east-west freeway that extends from the Interstate 80 (I-80) junction in West Sacramento to Canal Street in the City of Placerville, where it continues as a highway across the Sierra Nevada to South Lake Tahoe and Nevada. West of Sunrise Boulevard it is an eight-lane freeway. Primary access to US 50 is via an interchange with South Watt Avenue located about 1.5 miles north of the site, and via an interchange with Howe Avenue located about 1.9 miles northwest of the site. To the west, US 50 provides access to Central City Sacramento, SR 99, I-5, and I-80. To the east, US 50 provides access to eastern Sacramento County, the cities of Rancho Cordova and Folsom, and El Dorado County.

Roadway System – Local Access

Direct access to the site is provided via Jackson Road and South Watt Avenue. Other roadways providing site access include Bradshaw Road, Elder Creek Road, Florin Perkins Road, Folsom Boulevard, 14th Avenue, Fruitridge Road, Howe Avenue, Kiefer Boulevard, and Power Inn Road.

Jackson Road forms the northern boundary of the site. The roadway generally travels from west-northwest to east-southeast from Folsom Boulevard to the west into Amador County to the east. Jackson Road is State Route 16 (SR 16). It is generally a two-lane roadway with some widening at intersections.

South Watt Avenue forms the eastern boundary of the site. This north-south roadway extends to Folsom Boulevard to the north, where it becomes Watt Avenue. Watt Avenue provides access to US 50, and extends northerly across the American River. To the north, it provides access through northern Sacramento County to I-80 and into Placer County. To the south, South Watt Avenue extends to Florin Road, where it becomes Elk Grove Florin Road. Elk Grove Florin Road extends to Stockton Boulevard in the City of Elk Grove. South Watt Avenue has two to six through lanes.

Bradshaw Road is a north-south roadway located about 1.9 miles east of the project site. To the north, Bradshaw Road provides access to US 50, Folsom Boulevard, and the City of Rancho Cordova. To the south, Bradshaw Road continues to Grant Line Road in the City of Elk Grove. Bradshaw Road has two to six through lanes.

Elder Creek Road is an east-west roadway located about 1.3 miles south of the project site. To the west, Elder Creek Road extends to Stockton Boulevard, where it becomes 47th Avenue. 47th Avenue provides access to SR 99. To the east, Elder Creek Road extends to Excelsior Road. Elder Creek Road has two to four through lanes.

Florin Perkins Road is a north-south roadway located about 0.5 miles west of the project site. To the north, Florin Perkins Road extends to Folsom Boulevard. North of Folsom Boulevard, it becomes Julliard Drive, serving a residential area. To the south, Florin Perkins Road extends to Florin Road, where it becomes French Road. Florin Perkins Road is a four-lane roadway.

Folsom Boulevard is an east-west roadway located about 0.6 miles north of the site. To the west, Folsom Boulevard extends to Central City Sacramento at Alhambra Boulevard. To the

east, it extends into the Cities of Rancho Cordova and Folsom. Folsom Boulevard has two to six through lanes.

14th Avenue is an east-west roadway located west of the site. To the west, 14th Avenue extends to Martin Luther King Jr. Boulevard, where it transitions to 12th Avenue. 12th Avenue provides access to SR 99. 14th Avenue currently terminates about in an industrial area about 0.5 miles east of Power Inn Road. It is planned to extend 14th Avenue easterly to the project site and South Watt Avenue. 14th Avenue is currently a two-lane roadway.

Fruitridge Road is an east-west roadway located about 0.3 miles south of the project site. To the west, the roadway provides access to SR 99 and extends to South Land Park Drive. To the east, Fruitridge Road extends to Mayhew Road. Fruitridge Road has two to four through lanes.

Howe Avenue is a north-south roadway located about 1.6 miles northwest of the project site. Howe Avenue begins at Folsom Boulevard, and continues northerly providing access to US 50 via a full interchange. It then crosses the American River and continues northerly to Auburn Boulevard and the Business Route 80 Freeway. Howe Avenue has two to six through lanes.

Kiefer Boulevard is an east-west roadway located about 0.4 miles north of the project site. It begins at Florin Perkins Road to the west, and continues easterly to Happy Lane near Mather Airport. Kiefer Boulevard has two to four through lanes.

Power Inn Road is a north-south roadway located about 1.5 miles west of the project site. Power Inn Road begins at Folsom Boulevard, and continues southerly to Sheldon Road in the City of Elk Grove. Power Inn Road has three to six through lanes.

Pedestrian System

The pedestrian sidewalk system is incomplete near the site. There are no sidewalks along either side of Jackson Road and South Watt Avenue adjacent to the project site. As development occurs, sidewalks are being installed along many roadways in the area. With the exception of those locations where such improvements have already occurred, pedestrian access in the immediate vicinity of the project is limited to roadway shoulders.

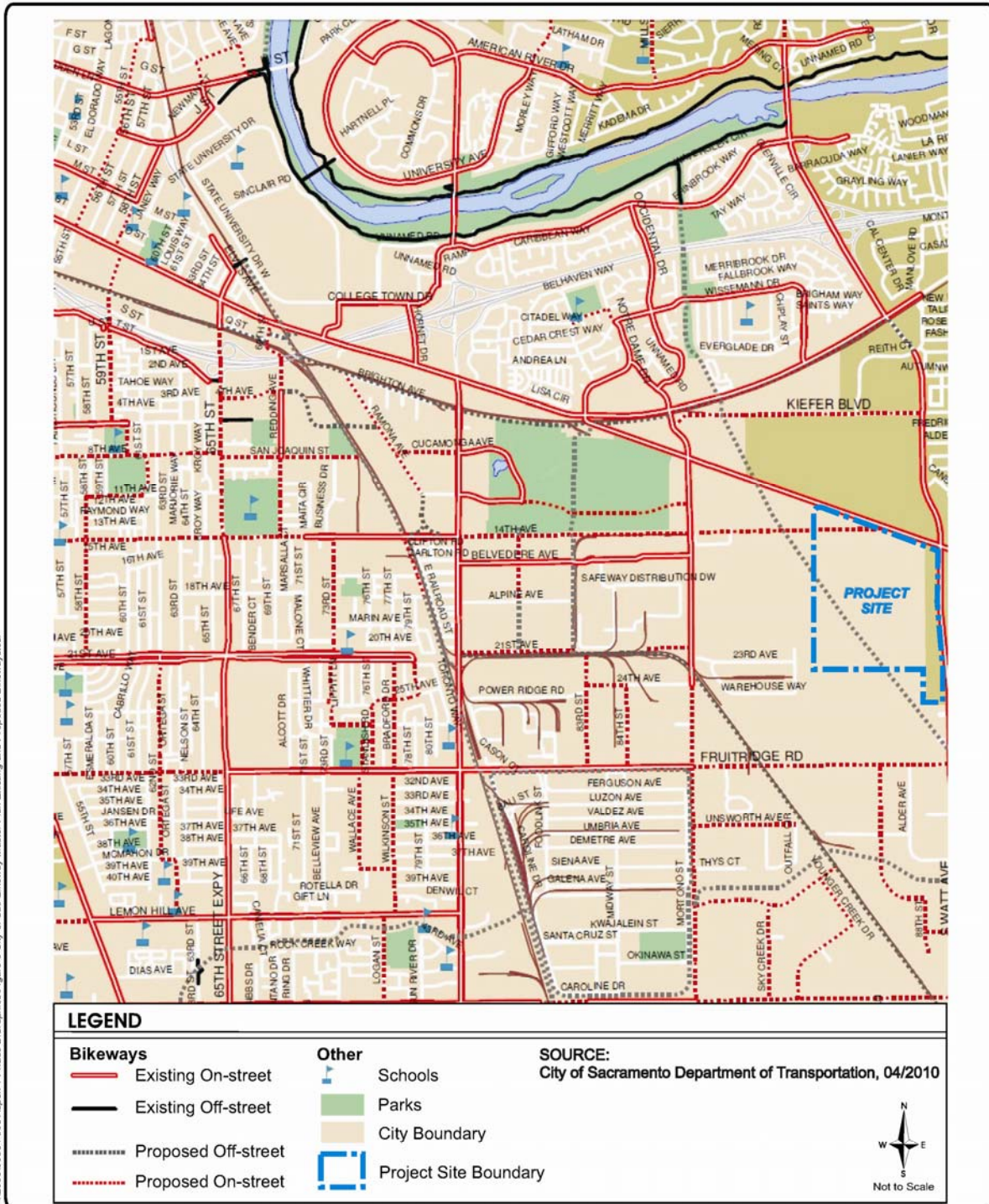
Bicycle System

Figure 5.10-3 illustrates the City of Sacramento Bikeway Master Plan.

On-street bikeways currently exist along both sides of Jackson Road and South Watt Avenue near the project site. Existing bikeways extend along Jackson Road, Florin Perkins Road, and Folsom Boulevard providing access to retail areas along Folsom Boulevard. Bikeways along South Watt Avenue provide access to the Watt / Manlove light rail station at Folsom Boulevard. Access is also provided to the American River bikeway system and California State University Sacramento.

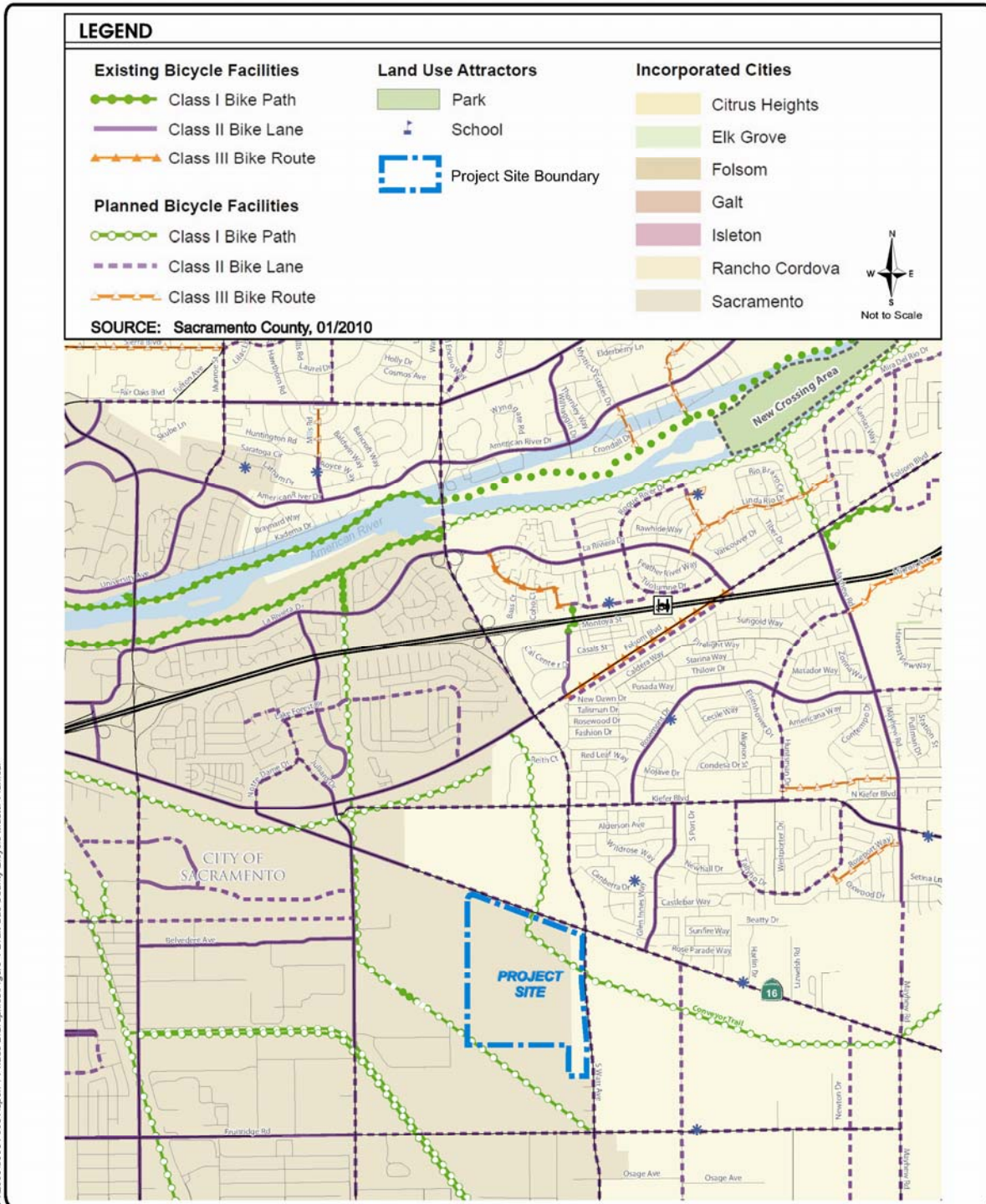
Sacramento County is in the process of updating its Bicycle Master Plan. Adoption of the plan is anticipated in early 2011.¹ Figure 5.10-4 illustrates the draft master plan facilities near the project site.

**Figure 5.10-3
 City of Sacramento Bikeway Master Plan – Existing and Proposed Bikeways**



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Figure 5.10-4
Sacramento County Bicycle Master Plan – Existing and Planned Bicycle Facilities



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FIGURE 5.10-4
SACRAMENTO COUNTY BICYCLE MASTER PLAN
EXISTING AND PLANNED BICYCLE FACILITIES

Transit System

The Sacramento Regional Transit District (RT) operates 64 bus routes and 37.5 miles of light rail covering a 418 square-mile service area. Buses and light rail run 365 days a year using 76 light rail vehicles, 256 buses powered by compressed natural gas (CNG) and 16 shuttle vans. Buses operate daily from 5 a.m. to 9 p.m. every 15 to 75 minutes, depending on the route. Light rail trains begin operation at 4 a.m. with service every 15 minutes during the day and every 30 minutes in the evening and on weekends. The Blue and Gold Line trains operate until 9:00 p.m. and the Gold Line to Folsom operates until 7:00 p.m.

Passenger amenities include 48 light rail stops or stations, 35 bus and light rail transfer centers and 18 park-and-ride lots. RT also serves more than 3,300 bus stops throughout Sacramento County.²

Figure 5.10-5 illustrates selected RT service near the project site. The RT Gold Line light rail service is located parallel to Folsom Boulevard north of the project site. The Watt / Manlove station is accessed via South Watt Avenue, and is located about 1.1 miles north of the project site. The College Greens station is accessed via Jackson Road and Florin Perkins Road, and is located about 0.8 miles northwest of the project site.

No RT bus service currently operates along Jackson Road or South Watt Avenue adjacent to the site. Route 61 (Fruitridge) operates along Florin Perkins Road and Fruitridge Road, providing access to the College Greens, Power Inn, and Fruitridge light rail stations. Route 61 operates Monday through Friday from approximately 5:00 a.m. to 9:30 p.m.

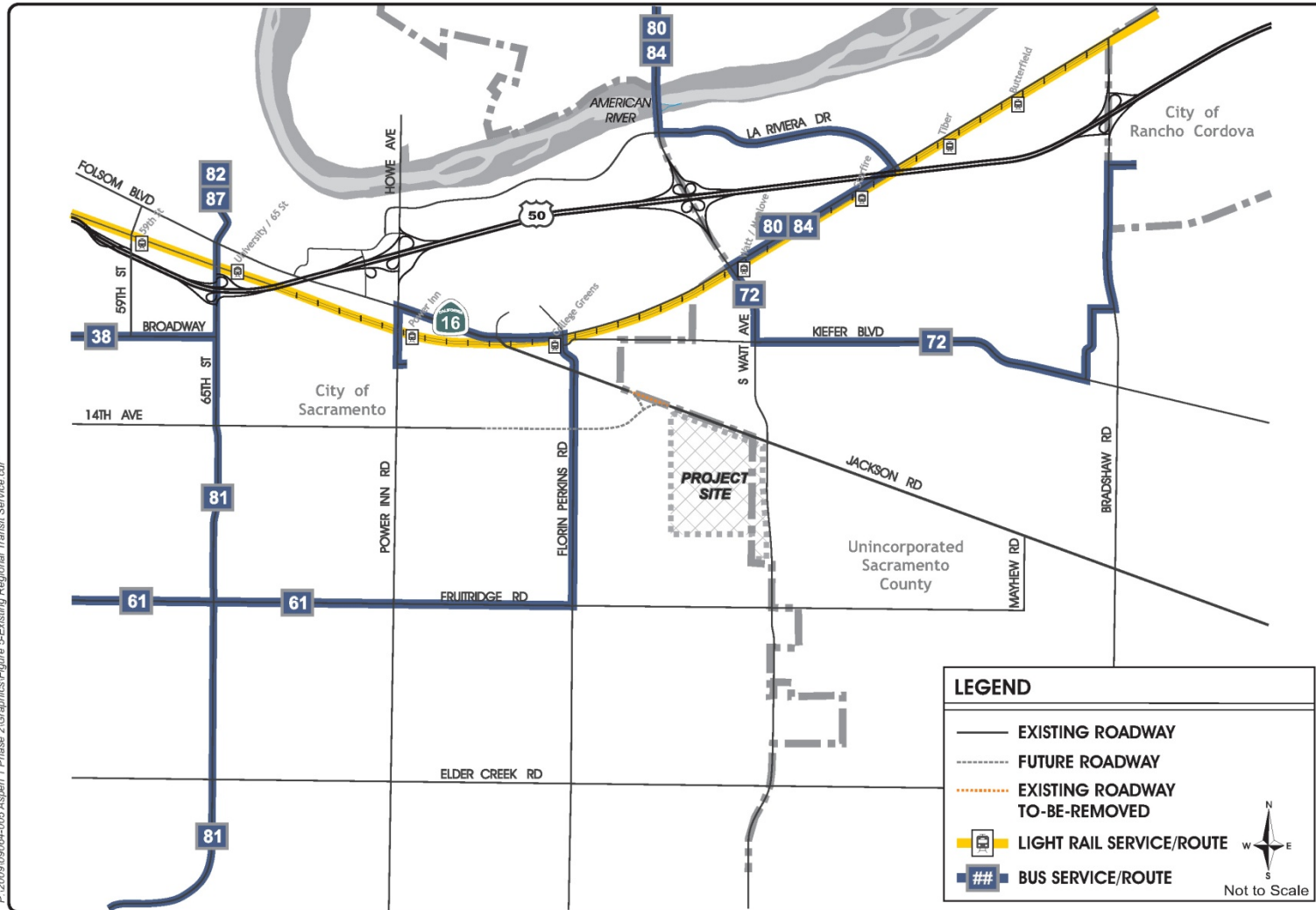
Route 72 (Rosemont - Lincoln Village) operates along Kiefer Boulevard and South Watt Avenue, providing access to the Watt / Manlove and Mather / Mills light rail stations. Route 72 operates Monday through Friday from approximately 6:00 a.m. to 9:30 p.m., with additional service on Saturdays, Sundays, and holidays.

Study Area

For traffic analysis purposes, a set of intersections, roadway segments, and freeway facilities were selected based upon the anticipated volume of project traffic, the distributional patterns of project traffic, and known locations of operational difficulty. The Sacramento County Department of Transportation and Caltrans were consulted. The following locations, illustrated in Figures 5.10-6 and 5.10-7, were identified:

- Intersections
 1. South Watt Avenue and Folsom Boulevard
 2. South Watt Avenue and Kiefer Boulevard
 3. South Watt Avenue and Jackson Road
 4. South Watt Avenue and Fruitridge Road
 5. South Watt Avenue and Elder Creek Road
 6. Howe Avenue and US 50 Westbound Ramps / College Town Drive
 7. Howe Ave. and US 50 Eastbound Ramps
 8. Howe Avenue / Power Inn Road and Folsom Boulevard
 9. Power Inn Road and 14th Avenue
 10. Notre Dame Drive / Jackson Road and Folsom Boulevard

**Figure 5.10-5
 Existing Regional Transit Service**



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**FIGURE 5.10-5
 EXISTING REGIONAL TRANSIT SERVICE**

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Figure 5.10-6
 Study Area

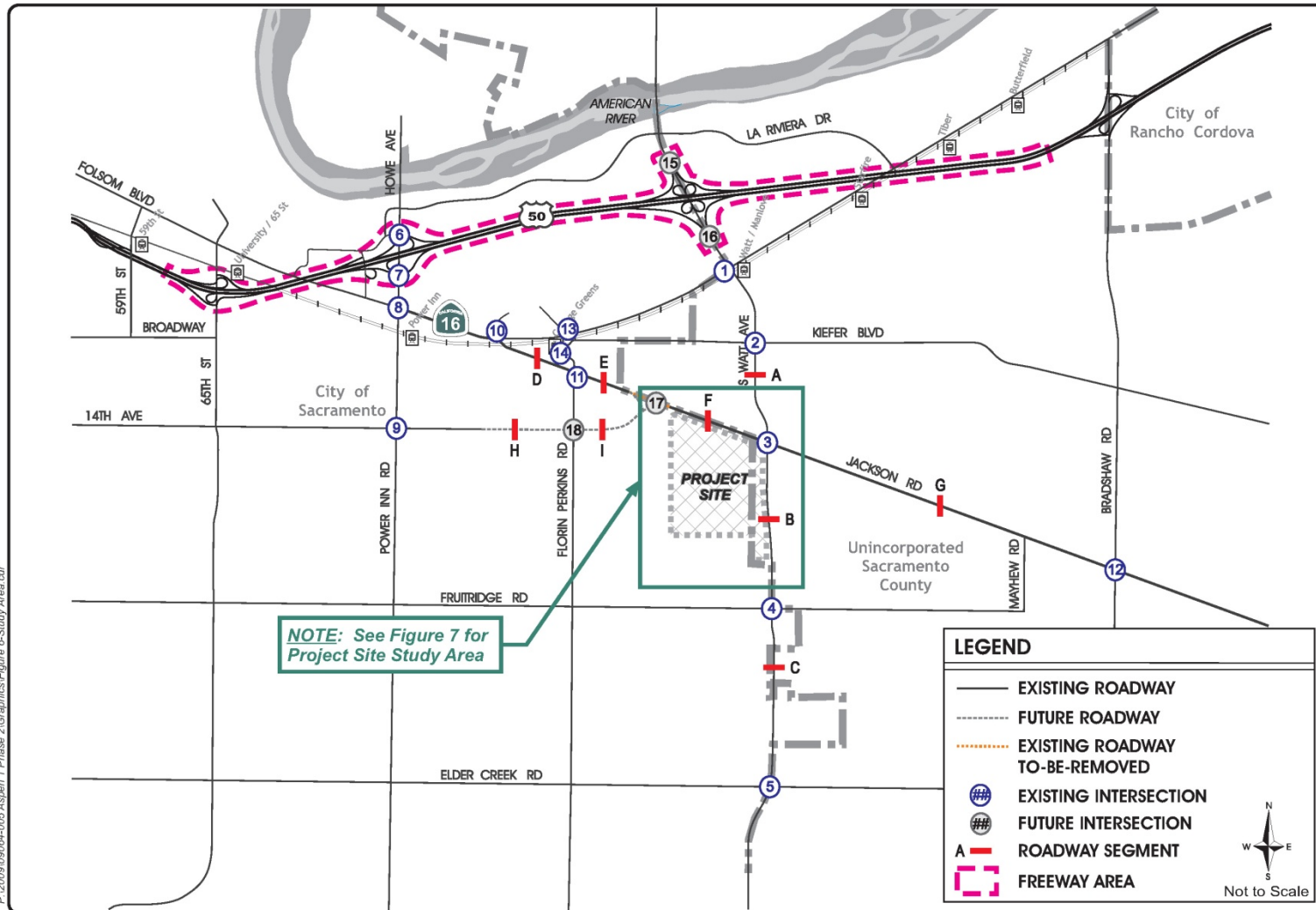
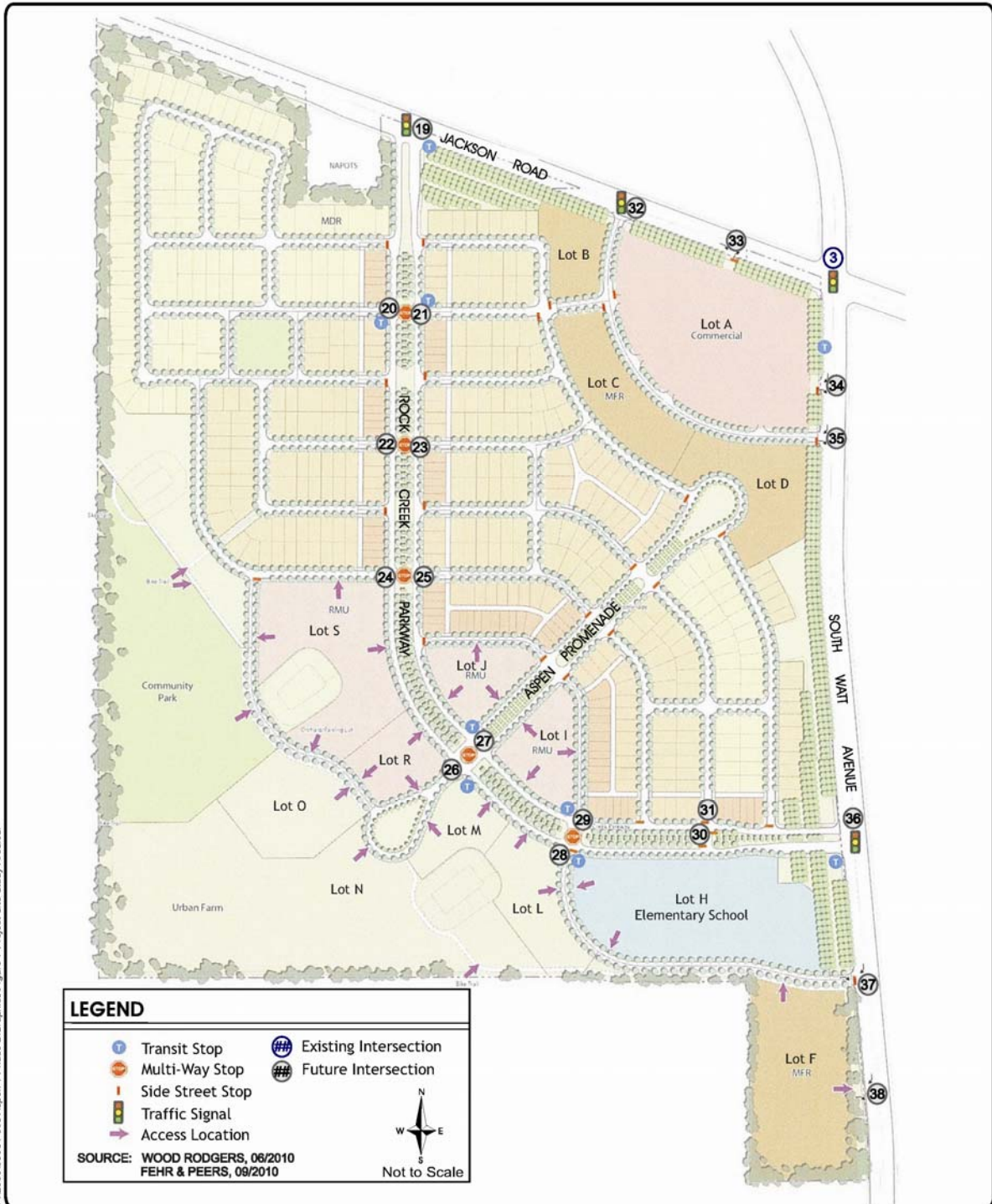


FIGURE 5.10-6
STUDY AREA

**Figure 5.10-7
 Project Site Study Area**



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**FIGURE 5.10-7
 PROJECT SITE STUDY AREA**

11. Florin Perkins Road and Jackson Road
 12. Bradshaw Road and Jackson Road
 13. Julliard Drive / Florin Perkins Road and Folsom Boulevard
 14. Florin Perkins Road and Kiefer Boulevard
 15. Watt Avenue and US 50 Westbound Ramps (future)
 16. Watt Avenue and US 50 Eastbound Ramps (future)
 17. Jackson Road and 14th Avenue (future)
 18. Florin Perkins Road and 14th Avenue (future)
 19. Rock Creek Parkway and Jackson Road
 20. Rock Creek Parkway and Street 7
 21. Rock Creek Parkway and Street 16
 22. Rock Creek Parkway and Street 13
 23. Rock Creek Parkway and Street 18
 24. Rock Creek Parkway and Street 11
 25. Rock Creek Parkway and Street 20
 26. Rock Creek Parkway and Aspen Promenade SW
 27. Rock Creek Parkway and Aspen Promenade NE
 28. Street 30 and Rock Creek Parkway
 29. Street 22 and Rock Creek Parkway
 30. Street 24 and Rock Creek Parkway Eastbound
 31. Street 24 and Rock Creek Parkway Westbound
 32. Lot B / Lot A Access Road and Jackson Road
 33. Lot A Access and Jackson Road
 34. South Watt Avenue and Lot A Access
 35. South Watt Avenue and Lot A / Lot D Access Road
 36. South Watt Avenue and Rock Creek Parkway
 37. South Watt Avenue and Street 30
 38. South Watt Avenue and Lot F Access
- Roadway Segments
 - A. South Watt Avenue - Kiefer Boulevard to Jackson Road
 - B. South Watt Avenue - Jackson Road to Fruitridge Road
 - C. South Watt Avenue - Fruitridge Road to Elder Creek Road
 - D. Jackson Road - Folsom Blvd. to Florin Perkins Road
 - E. Jackson Road - East of Florin Perkins Road
 - F. Jackson Road - West of South Watt Avenue
 - G. Jackson Road - South Watt Ave. to Bradshaw Road
 - H. 14th Avenue - Power Inn Rd. to Florin Perkins Road (future)
 - I. 14th Avenue - Florin Perkins Rd. to Jackson Road (future)
 - Freeway Mainline Segments
 - US 50 - 65th Street to Howe Avenue
 - US 50 - Howe Avenue to Watt Avenue
 - US 50 - Watt Avenue to Bradshaw Road
 - Freeway Interchanges
 - US 50 - 65th Street

- US 50 - Howe Avenue
- US 50 - Watt Avenue

- Freeway Ramp Queuing
 - US 50 - Howe Avenue Eastbound Exit Ramp
 - US 50 - Howe Avenue Westbound Exit Ramp
 - US 50 - Watt Avenue Eastbound Exit Ramp (future)
 - US 50 - Watt Avenue Westbound Exit Ramp (future)

Existing Intersection Geometry

Existing intersection geometry (number of approach lanes and traffic control) is illustrated in Figure 5.10-8(a) and (b). Additional geometric data is included in the technical appendices.

Existing Traffic Volumes

For the fourteen existing study area intersections, peak period intersection turning movement counts were conducted for the a.m. weekday peak period (7:00 to 9:00 a.m.) and the p.m. weekday peak period (4:00 to 6:00 p.m.). The weekday peak period counts were conducted during October 2009 and October 2010.

Existing weekday peak hour intersection turning movement volumes are illustrated in Figures 5.10-8(a) and (b). Traffic count data is included in the technical appendices.

For the seven existing study area roadway segments, 24-hour machine counts were conducted during November 2009 and October 2010. Traffic count data is included in the technical appendices.

5.10.2 REGULATORY BACKGROUND

Roadway operations are regulated by agencies with jurisdiction of the particular roadway. Study area roadways are under the jurisdiction of the City of Sacramento, County of Sacramento, and the California Department of Transportation (Caltrans).

Method of Analysis

Field reconnaissance was undertaken to ascertain the traffic control characteristics of each of the study area intersections and roadway segments. Determination of roadway operating conditions is based upon comparison of known or projected traffic volumes during peak hours to roadway capacity. In an urban setting, roadway capacity is generally governed by intersection characteristics, and intersection delay is used to determine "levels of service." Levels of service describe roadway operating conditions. 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, safety, driving comfort and convenience, delay, and operating costs. 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.

Figure 5.10-8(a)
Existing No Project Conditions – Intersection Volumes and Geometry

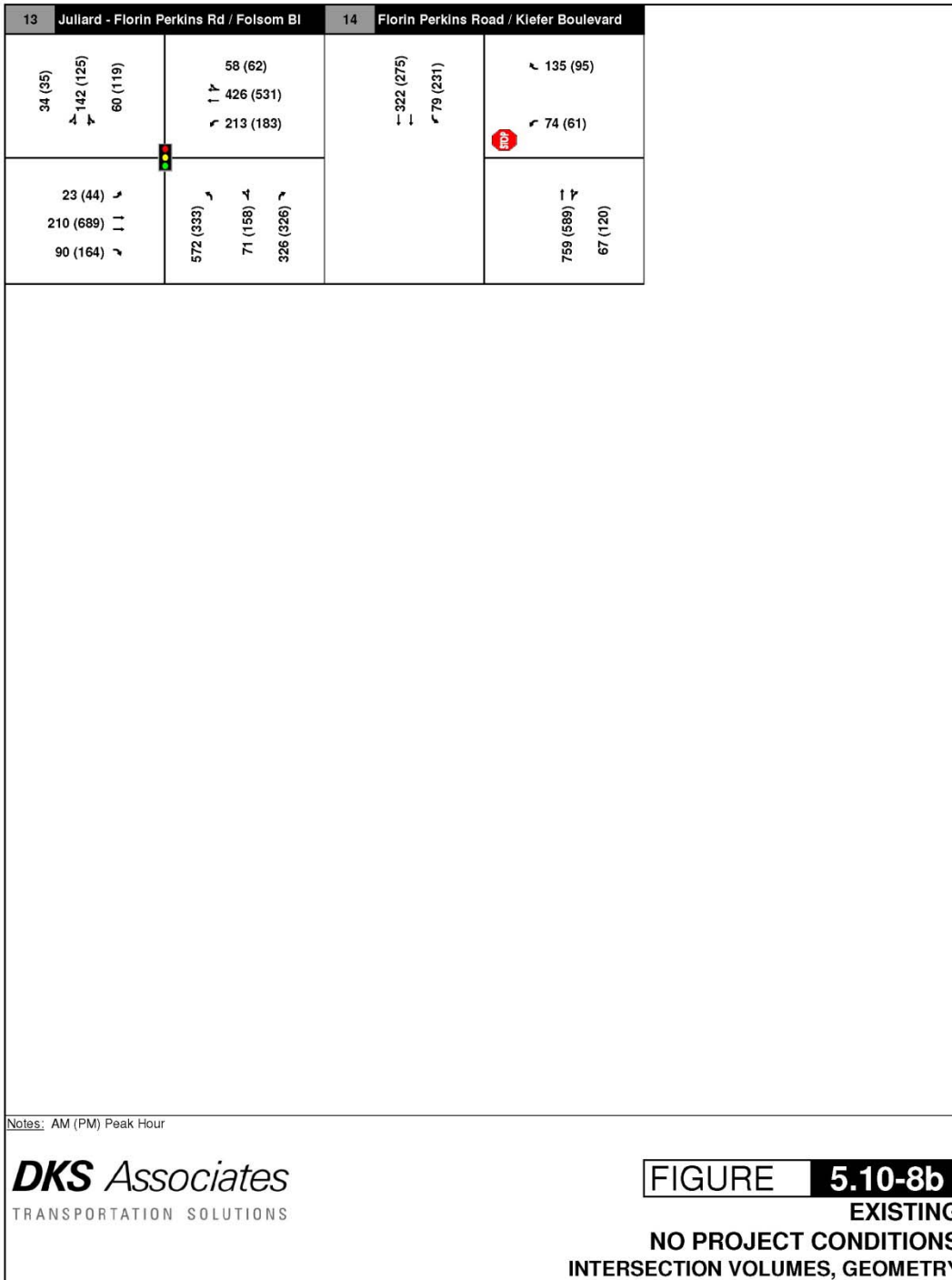
1	South Watt Avenue / Folsom Boulevard	2	South Watt Avenue / Klefer Boulevard	3	South Watt Avenue / Jackson Road
 641 (464) 846 (1288) 1012 (933)	 585 (886) 318 (465) 85 (231)	 110 (22) 819 (1128) 237 (550)	 389 (322) 180 (105) 142 (176)	 124 (75) 630 (969) 201 (297)	 458 (222) 515 (224) 86 (58)
441 (634) 471 (523) 181 (172)	 71 (77) 1351 (1284) 213 (140)	51 (118) 99 (261) 26 (31)	 52 (6) 1173 (1069) 145 (147)	42 (90) 188 (506) 23 (46)	 65 (28) 882 (885) 45 (83)
4	South Watt Avenue / Fultridge Road	5	South Watt Avenue / Elder Creek Road	6	Howe Ave / US 50 WB - College Town
 249 (61) 484 (884) 22 (25)	 5 (8) 154 (109) 34 (16)	 191 (128) 341 (838) 21 (16)	 53 (28) 177 (157) 23 (66)	 304 (426) 1087 (1718)	 622 (655) 582 (372) 452 (632)
159 (316) 159 (186) 40 (75)	 132 (80) 836 (569) 15 (5)	75 (135) 144 (179) 29 (146)	 110 (50) 880 (479) 71 (49)	55 (245) 247 (546)	 1310 (1690) 825 (760)
7	Howe Avenue / US 50 EB Ramps	8	Howe Ave - Power Inn Rd / Folsom Blvd	9	Power Inn Road / 14th Avenue
 474 (891) 1285 (1980)	 5 (8) 154 (109) 34 (16)	 290 (119) 1365 (1531) 493 (925)	 474 (713) 869 (482) 218 (284)	 234 (462) 793 (1466) 29 (35)	 40 (19) 65 (45) 15 (23)
720 (843) 880 (585)	 1448 (1666) 349 (501)	137 (210) 260 (675) 76 (138)	 384 (207) 1189 (1260) 209 (195)	370 (219) 23 (29) 118 (169)	 167 (155) 1608 (914) 14 (8)
10	Notre Dame - Jackson Rd / Folsom Bl	11	Florin Perkins Road / Jackson Road	12	Bradshaw Road / Jackson Road
 190 (99) 8 (16) 14 (10)	 51 (23) 921 (841) 4 (4)	 7 (6) 453 (395) 16 (47)	 148 (38) 373 (157) 168 (133)	 259 (254) 456 (1496) 116 (225)	 289 (113) 536 (261) 21 (40)
40 (92) 326 (887) 385 (847)	 438 (246) 6 (4) 0 (3)	10 (11) 164 (442) 282 (353)	 163 (131) 806 (775) 96 (164)	305 (209) 172 (571) 45 (87)	 99 (48) 1404 (609) 15 (18)

Notes: AM (PM) Peak Hour

DKS Associates
 TRANSPORTATION SOLUTIONS

FIGURE 5.10-8a
EXISTING
NO PROJECT CONDITIONS
INTERSECTION VOLUMES, GEOMETRY

Figure 5.10-8(b)
Existing No Project Conditions – Intersection Volumes and Geometry



Jurisdiction

For analysis purposes, each of the study area transportation elements was assigned to a particular jurisdiction (City of Sacramento, County of Sacramento, or Caltrans) for purposes of specifying the analysis methodology and standards of significance for impact determination. The following process of allocation was utilized:

Federal

No pertinent federal regulations affect the proposed project.

State

The freeway system and the intersections at the freeway interchanges were assigned to Caltrans jurisdiction for analysis purposes.

Local

All intersections and roadway segments entirely in the unincorporated County (not on a City existing or future boundary) were assigned to County jurisdiction for analysis purposes.

All remaining intersections and roadway segments (entirely within the City or on a City existing or future boundary) were assigned to City jurisdiction for analysis purposes.

Level of Service Policy

City of Sacramento

The Mobility Element of the City of Sacramento 2030 General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The City of Sacramento has the following level of service policy relevant to this study:

Policy M 1.2.2 LOS Standard. The City shall allow for flexible Level of Service (LOS) standards, which will permit increased densities and mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.

- a. **Core Area Level of Service Exemption** – LOS F conditions are acceptable during peak hours in the Core Area bounded by C Street, the Sacramento River, 30th Street, and X Street. If a Traffic Study is prepared and identifies a LOS impact that would otherwise be considered significant to a roadway or intersection that is in the Core Area as described above, the project would not be required in that particular instance to widen roadways in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the

- area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to road segments in order to conform to the General Plan. This exemption does not affect the implementation of previously approved roadway and intersection improvements identified for the Railyards or River District planning areas.
- b. **Level of Service Standard for Multi-Modal Districts** – The City shall seek to maintain the following standards in the Central Business District, in areas within ½ mile walking distance of light rail stations, and in 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.
- Maintain operations on all roadways and intersections at LOS A-E at all times, including peak travel times, unless maintaining this LOS 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.
- c. **Base Level of Service Standard** – the City shall seek to maintain the following standards for all areas outside of multi-modal districts.
- Maintain operations on all roadways and intersections at LOS A-D at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. LOS E or F conditions may be accepted, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation as part of a development project or a City-initiated project.
- d. **Roadways Exempt from Level of Service Standard** – The above LOS standards shall apply to all roads, intersections, or interchanges within the City except as specified below. If a Traffic Study is prepared and identifies a significant LOS impact to a roadway or intersection that is located within one of the roadway corridors described below, the project would not be required in that particular instance to widen roadways in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the city wide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not

be required to provide any mitigation for vehicular traffic impacts to the listed road segment in order to conform to the General Plan.

- 12th/14th Avenue: State Route 99 to 36th Street
 - 24th Street: Meadowview Road to Delta Shores Circle
 - 65th Street: Folsom Boulevard to 14th Avenue
 - Alhambra Boulevard: Folsom Boulevard to P Street
 - Arcade Boulevard: Marysville Boulevard to Del Paso Boulevard
 - Arden Way: Capital City Freeway to Ethan Way
 - Blair Avenue/47th Avenue: S. Land Park Drive to Freeport Boulevard
 - Broadway: 15th Street to Franklin Boulevard
 - Broadway: 58th to 65th Streets
 - El Camino Avenue: Stonecreek Drive to Marysville Boulevard
 - El Camino Avenue: Capitol City Freeway to Howe Avenue
 - Elder Creek Road: 65th Street to Power Inn Road
 - Florin Perkins Road: 14th Avenue to Elder Creek Road
 - Florin Road: Greenhaven Drive to I-5; 24th Street to Franklin Boulevard
 - Folsom Boulevard: 34th Street to Watt Avenue
 - Freeport Boulevard: Broadway to Seamas Avenue
 - Fruitridge Road: Franklin Boulevard to SR 99
 - Garden Highway: Truxel Road to Northgate Boulevard
 - Howe Avenue: American River Drive to Folsom Boulevard
 - J Street: 43rd Street to 56th Street
 - Mack Road: Meadowview Road to Stockton Boulevard
 - Martin Luther King Boulevard: Broadway to 12th Avenue
 - Marysville Boulevard: I-80 to Arcade Boulevard
 - Northgate Boulevard: Del Paso Road to SR 160
 - Raley Boulevard: Bell Avenue to I-80
 - Roseville Road: Marconi Avenue to I-80
 - Royal Oaks Drive: SR 160 to Arden Way
 - Truxel Road: I-80 to Gateway Park
- e. Modify LOS Policies for Five Special Study Segments - The City shall exempt the following five special study segments, in the event that the Street Classification diagram is modified to reduce the number of lanes on those segments from four lanes to two lanes.
- 24th Street: Meadowview Road to Cosumnes River Boulevard
 - Capitol Mall: 3rd Street to 5th Street
 - Folsom Boulevard: 34th Street to 47th Street and 59th Street to 65th Street
 - Garden Highway: Truxel Road to Northgate Boulevard
 - J Street: 43rd Street to 56th Street³

Policy M 1.2.2 applies to the study area roadway facilities as follows:

- Study intersections 11 (Florin Perkins Road and Jackson Road) and 14 (Florin Perkins Road and Kiefer Boulevard) are located within one-half mile walking distance of light rail (College Greens Station) and are governed by M 1.2.2 (b). LOS A to E are to be maintained at all times. However, 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.

- Study intersections located along Folsom Boulevard are governed by M 1.2.2 (d). LOS F is acceptable during peak hours, if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to the listed road segment in order to conform to the General Plan.
- The remaining intersections in City jurisdiction are governed by M 1.2.2 (c). LOS A to D are to be maintained at all times. However, LOS E or 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.

The Mobility Element of the City of Sacramento's 2030 General Plan also includes the following policies related to connectivity, walking, biking, transit, and parking that are relevant to this study:

Policy M 1.3.1 Grid Network. The City shall require all new residential, commercial, or mixed-use development that proposes or is required to construct or extend streets to develop a transportation network that provides for a well-connected, walkable community, preferably as a grid or modified grid.

Policy M 1.3.2 Private Complete Streets. The City shall require large private developments (i.e., office parks, apartment complexes, retail centers) to provide internal complete streets that connect to the existing roadway system.

Policy M 2.1.1 Pedestrian Master Plan. The City shall maintain and implement a Pedestrian Master Plan that carries out the goals and policies of the General Plan and defines: the type and location of pedestrian-oriented streets and pathways; standards for sidewalk width, improvements, amenities, and street crossings; the schedule for public improvements; and developer responsibilities. All new development shall be consistent with the applicable provisions of the Pedestrian Master Plan.

Policy M 2.1.5 Continuous Network. The City shall provide a continuous pedestrian network in existing and new neighborhoods that facilitates convenient pedestrian travel free of major impediments and obstacles.

Policy M 3.1.1 Transit for All. The City shall support a well-designed transit system that meets the transportation needs of Sacramento residents and visitors including seniors, the disabled, and transit-dependent persons. The City shall enhance bicycle and pedestrian access to stations.

Policy M 4.3.1 Neighborhood Traffic Management. The City shall continue wherever possible to design streets and approve development applications in such a manner as to reduce high traffic flows and parking problems within residential neighborhoods.

Policy M 5.1.1 Bikeway Master Plan. The City shall maintain and implement a Bikeway Master Plan that carries out the goals and policies of the General Plan. All new development shall be consistent with the applicable provisions of the Bikeway Master Plan.

Policy M 5.1.2 Appropriate Bikeway Facilities. The City shall provide bikeway facilities that are appropriate to the street classifications and type, traffic volume, and speed on all right-of-ways.

Policy M 5.1.4 Motorists, Bicyclists, and Pedestrian Conflicts. The City shall develop safe and convenient bikeways that reduce conflicts between bicyclists and motor vehicles on streets, and bicyclists and pedestrians on multi-use trails and sidewalks.

Policy M 5.1.7 Class II Bike Lane Requirements. The City shall require Class II bike lanes on all new arterial and collector streets.

Policy M 6.1.1 Appropriate Parking. The City shall ensure that appropriate parking is provided, considering access to existing and funded transit, shared parking opportunities for mixed-use development, and implementation of Transportation Demand Management plans.⁴

County of Sacramento

The County of Sacramento has the following level of service policy:

The County defines the minimum acceptable operation level for its roadways and intersections to be LOS D for rural areas and LOS E for urban areas. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.⁵

The county facilities in the study area are located within the Urban Service Boundary. Therefore, the LOS E standard applies.

Caltrans

The standards for Caltrans' facilities in the study area are detailed in the US 50 Corridor System Management Plan (CSMP) and the SR 16 Route Concept Report. The 20-Year Concept LOS for US 50 in the study area is LOS F, because improvements necessary to improve the LOS to E are not feasible due to environmental, right-of-way, financial, and other constraints. Although the US 50 CSMP allows LOS "F," a LOS E threshold was utilized for conservatism in this review. For SR 16, LOS E is considered the minimum acceptable operating condition.

Intersection Analysis

For signalized intersections in Caltrans or City jurisdiction, intersection analyses were conducted using a methodology outlined in the Transportation Research Board's Special Report 209, *Highway Capacity Manual*, 2000 (HCM 2000). The methodology utilized is known as "operational analysis." This procedure calculates an average control delay per vehicle at an intersection, and assigns a level of service designation based upon the delay. Table 5.10-1 presents the level of service criteria for signalized intersections based on the HCM 2000 methodology.

For signalized intersections in County jurisdiction, intersection analyses were conducted using an updated methodology outlined in the Transportation Research Board's Circular 212, *Interim Materials on Highway Capacity*, 1980. The methodology is known as "critical lane analysis." This procedure calculates the number of vehicles per lane per hour of critical conflicting movements at an intersection, and assigns a level of service designation based upon the sum. Table 5.10-2 presents the level of service criteria for signalized intersections based on the critical lane analysis methodology.

For unsignalized intersections, intersection analyses were conducted using a methodology outlined in the Transportation Research Board's Special Report 209, *Highway Capacity Manual*, 2000. The methodology utilized is known as "operational analysis." This procedure calculates an average control delay per vehicle at an intersection, and assigns a level of service designation based upon the delay. Table 5.10-3 presents the level of service criteria for unsignalized intersections.

Daily Segment Analysis

Level of service analyses were conducted for roadway segments in the study area based upon daily traffic volumes, number of traffic lanes between intersections, and roadway characteristics. In this methodology, the major arterial network is divided into "capacity class" categories for level of service determination, as shown in Tables 5.10-4 and 5.10-5, for the City and County, respectively. The capacity class categories are based upon the nature of traffic flow along the facility, including number of interruptions due to intersection control and "side-friction" due to driveways and local streets. For each capacity class, relationships were developed between daily traffic volumes and roadway level of service.

Tables 5.10-4 and 5.10-5 summarize the maximum daily traffic volumes for each capacity class / level of service combination. Although the segment-based level of service calculations are based upon daily traffic volumes, the resultant levels of service are representative of peak hour conditions.

Freeway Analysis

Freeway mainline segments, ramp junctions, and weaving segments were analyzed utilizing methodologies outlined in the Transportation Research Board's Special Report 209, *Highway Capacity Manual*, 2000. Tables 5.10-6, 5.10-7, and 5.10-8 present the level of service criteria for the freeway mainline, freeway ramp junctions, and freeway weaving segments, respectively.

Results of Existing Conditions Analysis

Study area intersections and freeway facilities were evaluated for weekday a.m. and p.m. peak hours. Study area roadway segments were evaluated based upon daily traffic volumes.

Table 5.10-1		
Level of Service Criteria – Signalized Intersections (HCM 2000 Methodology)		
Level of Service (LOS)	Control Delay Per Vehicle (seconds)	Description
A	≤ 10.0	Very low control delay. Occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10.0 and ≤ 20.0	Generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS “A,” causing higher levels of average delay.
C	> 20.0 and ≤ 35.0	These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	> 35.0 and ≤ 55.0	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55.0 and ≤ 80.0	These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.
F	> 80.0	This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Table 5.10-2			
Level of Service Criteria – Signalized Intersections (Critical Lane Methodology)			
Level of Service (LOS)	Sum of Critical Lane Volumes by Signal Phasing (vehicles/critical lane/hour)		
	2-Phase	3-Phase	4 or More Phase
A	0-990	0-930	0-900
B	991-1155	931-1085	901-1050
C	1156-1320	1086-1240	1051-1200
D	1321-1485	1241-1395	1201-1350
E	1486-1650	1396-1550	1351-1500
F	>1650	>1550	>1500

Source: Interim Materials on Highway Capacity, Circular 212, Transportation Research Board, Washington D.C., 1980, and Traffic Impact Analysis Guidelines, County of Sacramento Department of Transportation, July 2004.

Level of Service (LOS)	Total Delay Per Vehicle (seconds)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Facility Type	Number of Lanes	Daily Volume Threshold (Level of Service)				
		LOS A	LOS B	LOS C	LOS D	LOS 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, minor	2	5,250	6,125	7,000	7,875	8,750
Residential	2	3,000	3,500	4,000	4,500	5,000
Facility Type	Stops per 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		

Note: LOS = level of service

Source: City of Sacramento Traffic Impact Analysis Guidelines, 1996; City of Sacramento, Department of Transportation Staff, 2007.

Table 5.10-5 Daily Volume Threshold for Roadway Segments – Sacramento County						
Facility Type	Number of Lanes	Daily Volume Threshold (Level of Service)				
		LOS A	LOS B	LOS C	LOS D	LOS E
Residential	2	600	1,200	2,000	3,000	4,500
Residential Collector with Frontage	2	1,600	3,200	4,800	6,400	8,000
Residential Collector without Frontage	2	6,000	7,000	8,000	9,000	10,000
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
Rural, 2-lane Highway	2	2,400	4,800	7,900	13,500	22,900
Rural, 2-lane Road, 24' - 36' of pavement, Paved Shoulders	2	2,200	4,300	7,100	12,200	20,000
Rural, 2-lane Road, 24' - 36' of pavement, No Shoulders	2	1,800	3,600	5,900	10,100	17,000
Facility Type	Stops per 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		

Note: LOS = level of service

Source: Traffic Impact Analysis Guidelines, County of Sacramento Department of Transportation, July 2004.

Table 5.10-6 Level of Service Criteria – Freeway Mainline		
Level of Service (LOS)	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: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Table 5.10-7 Level of Service Criteria – Freeway Ramp Junctions	
Level of Service (LOS)	Maximum Density (Passenger Cars Per Mile Per Lane)
A	10
B	20
C	28
D	35
E	Greater than 35
F	Demand flows exceed capacity.

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Table 5.10-8 Level of Service Criteria – Freeway Weaving Segments	
Level of Service (LOS)	Maximum Density (Passenger Cars Per Mile Per Lane)
A	10
B	20
C	28
D	35
E	43
F	Greater than 43

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Intersection Operations

Table 5.10-9 summarizes the existing a.m. and p.m. peak hour operating conditions at the study area intersections. At unsignalized intersections, the average intersection level of service is utilized to determine conformity with the City’s goal. Individual movements may operate at worse levels of service. The following information was utilized to specify the LOS criteria at each intersection:

- Intersections 6 and 7 at the freeway ramps are in Caltrans jurisdiction, and are assigned LOS E.
- Intersections 2 and 12 are in County jurisdiction, and are assigned LOS E for an urban area.
- Intersections 1, 8, 10, 11, 13, and 14 are in City jurisdiction and are within one-half mile walking distance of light rail. Intersections 1, 8, 10, and 13 are also located in the Folsom Boulevard corridor. Therefore, all of these are assigned LOS E.
- The remaining intersections in City jurisdiction area assigned LOS D.

All of the intersections currently meet the level of service goals, with the exception of the intersection of Bradshaw and Jackson Roads. This intersection operates at LOS F in the a.m. peak hour with a volume-to-capacity ratio of 1.111.

Segment Operations

Level of service analyses were also conducted for the roadway segment in the vicinity of the project based upon daily traffic volumes, number of traffic lanes between intersections, and roadway characteristics. Table 5.10-10 summarizes the roadway levels of service. The following information was utilized to specify the LOS criteria for each segment:

**Table 5.10-9
 Existing Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS	Delay (Seconds)	LOS	Delay (Seconds)
1. South Watt Avenue and Folsom Blvd.	E	Signal	D	52.0	E	78.1
2. South Watt Avenue and Kiefer Blvd.	E	Signal	B	0.648 VC	C	0.708 VC
3. South Watt Avenue and Jackson Road	D	Signal	D	51.0	D	52.8
4. South Watt Avenue and Fruitridge Road	D	Signal	D	42.3	D	42.6
5. South Watt Avenue and Elder Creek Road	D	Signal	D	42.3	D	45.4
6. Howe Avenue and US 50 Westbound Ramps / College Town Drive	E	Signal	C	29.6	D	37.7
7. Howe Ave. and US 50 Eastbound Ramps	E	Signal	B	13.3	B	12.8
8. Howe Avenue / Power Inn Road and Folsom Boulevard	E	Signal	D	37.8	D	44.9
9. Power Inn Road and 14th Avenue	D	Signal	C	25.5	C	22.3
10. Notre Dame Drive / Jackson Road and Folsom Boulevard	E	Signal	C	27.6	C	22.5
11. Florin Perkins Road and Jackson Road	E	Signal	D	44.8	D	48.5
12. Bradshaw Road and Jackson Road	E	Signal	F	1.111 VC	E	0.938 VC
13. Julliard Drive / Florin Perkins Road and Folsom Boulevard	E	Signal	C	31.3	D	43.8
14. Florin Perkins Road and Kiefer Blvd.	E	2-Way Stop	A	2.6	A	3.3

Note: VC = Volume-to-Capacity Ratio for Critical Lane Methodology

Source: DKS Associates, 2011.

**Table 5.10-10
 Existing Roadway Segment Daily Operating Conditions**

Roadway	Segment	LOS Criteria	Volume	Lanes	V/C ¹	LOS
South Watt Avenue	A. Kiefer Boulevard to Jackson Road	E	29,192	5 ²	0.81	D
	B. Jackson Road to Fruitridge Road	D	23,737	2	1.32	F
	C. Fruitridge Road to Elder Creek Road	D	20,705	2	1.15	F
Jackson Road	D. Folsom Blvd. to Florin Perkins Road	E	13,434	2	0.75	C
	E. East of Florin Perkins Road	E	10,343	2	0.57	A
	F. West of South Watt Avenue	D	10,343	2	0.57	A
	G. South Watt Ave. to Bradshaw Road	E	16,242	2	0.90	E

1. Based on moderate access control.
 2. Analysis based on two southbound lanes.

Source: DKS Associates, 2011.

- Segments A and G are in County jurisdiction, and are assigned LOS E for an urban area.
- Segments D and E are in City jurisdiction and are within one-half mile walking distance of light rail. Therefore, they are assigned LOS E.
- The remaining segments in City jurisdiction area assigned LOS D.

All of the segments currently meet the level of service goals, with the exception of the South Watt Avenue segments between Jackson Road and Elder Creek Road. These segments operate at LOS F.

Freeway Operations

Table 5.10-11 summarizes the existing peak hour freeway mainline levels of service. All of the freeway mainline segments meet the Caltrans' LOS E goal.

Table 5.10-12 summarizes the existing peak hour freeway ramp junction levels of service. All of the freeway ramp junctions meet the Caltrans' LOS E goal.

Table 5.10-13 summarizes the existing peak hour freeway weaving segment levels of service. All of the freeway weaving segments meet the Caltrans' LOS E goal.

Table 5.10-14 summarizes the existing exit ramp queuing. None of the existing peak hour queues extends onto the freeway mainline.

5.10.3 INTRODUCTION TO ANALYSIS

Project Land Use and Circulation

Land Use

Project

The project consists of the following uses:

- Single-family residential - 482 units
- Multi-family residential - 883 units
- Retail - 192,500 square feet
- Office - 29,500 square feet
- Elementary School - 850 students

No School Alternative

In the project alternative, the elementary school is replaced by 79 single-family dwelling units. The No School Alternative consists of the following uses:

- Single-family residential - 561 units
- Multi-family residential - 883 units
- Retail - 192,500 square feet
- Office - 29,500 square feet

Table 5.10-11 Existing Peak Hour Freeway Mainline Level of Service						
Direction	Location	Through Lanes	Aux. Lanes	Volume	Density	LOS
A.M. Peak Hour						
Eastbound US 50	65th Street to Howe Avenue	4	1	8,307	38.54	E
	Howe Avenue to Watt Avenue	4	0	6,979	32.21	D
	Watt Avenue to Bradshaw Road	4	0	7,756	38.84	E
Westbound US 50	Bradshaw Road to Watt Avenue	4	0	7,564	36.94	E
	Watt Avenue to Howe Avenue	4	1	8,158	32.92	D
	Howe Avenue to 65th Street	4	1	8,453	36.47	E
P.M. Peak Hour						
Eastbound US 50	65th Street to Howe Avenue	4	1	8,150	37.10	E
	Howe Avenue to Watt Avenue	4	0	7,496	36.31	E
	Watt Avenue to Bradshaw Road	4	0	7,508	36.42	E
Westbound US 50	Bradshaw Road to Watt Avenue	4	0	7,721	38.47	E
	Watt Avenue to Howe Avenue	4	1	7,182	27.67	D
	Howe Avenue to 65th Street	4	1	7,733	34.05	D

Source: DKS Associates, 2011.

Table 5.10-12 Existing Peak Hour Freeway Ramp Junction Level of Service						
Direction	Location	Junction Type	A.M. Peak Hour		P.M. Peak Hour	
			Ramp Volume	LOS	Ramp Volume	LOS
Eastbound US 50	65th Street Exit	Single-Lane Diverge	518	E	592	E
	65th Street Loop Entrance	Single-Lane Merge	513	E	489	E
	Howe Ave. Loop Entrance	Single-Lane Merge	474	E	891	E
	Howe Ave. Slip Entrance	Single-Lane Merge	349	D	501	D
	Watt Avenue Exit	Two-Lane Diverge	1,186	A	1,570	B
	Watt Ave. C-D Entrance	Single-Lane Merge	1,963	C	1,582	C
Westbound US 50	Watt Avenue Exit	Two-Lane Diverge	1,598	B	2,146	B
	Watt Ave. Loop Entrance	Single-Lane Merge	708	C	566	C
	Watt Ave. Slip Entrance	Lane Addition	1,484	E	1,041	C
	Howe Avenue Exit	Major Diverge	1,656	D	1,659	C
	Howe Ave. Loop Entrance	Single-Lane Merge	825	E	760	E
	Howe Ave. Slip Entrance	Lane Addition	753	C	738	C
	65th Street Loop Entrance	Single-Lane Merge	341	E	328	D
	65th Street Slip Entrance	Single-Lane Merge	232	E	229	D

Source: DKS Associates, 2011.

Table 5.10-13 Existing Peak Hour Freeway Weaving Segment Level of Service					
A.M. Peak Hour			P.M. Peak Hour		
Weaving Segment Speed (mph)	Weaving Segment Density (pcplph)	LOS	Weaving Segment Speed (mph)	Weaving Segment Density (pcplph)	LOS
US 50 Eastbound – 65th Street Slip Entrance to Howe Avenue Exit					
53.6	35.3	E	54.4	34.1	D
US 50 Westbound – Hornet Drive Entrance to 65th Street Exit					
59.6	32.3	D	56.8	31.0	D
<i>Source: DKS Associates, 2011.</i>					

Table 5.10-14 Existing Peak Hour Freeway Ramp Termini Queuing				
Ramp	Movement	Available Queue Length (feet)¹	Maximum Queue (feet)	
			A.M. Peak Hour	P.M. Peak Hour
US 50 Eastbound Exit to Howe Ave.	Left	1,200	500	800
	Right	1,300	750	600
US 50 Westbound Exit to Howe Ave.	Left	1,350	600	1,200
	Through	975	575	650
	Right	2,100	1,150	1,300
1. Eastbound measured from intersection stop bar to Hornet Drive ramp split. Westbound measured from intersection stop bar to gore point. Total queue length in all lanes associated with the subject movement.				
<i>Source: DKS Associates, 2011.</i>				

Access

As shown on Figure 5.10-2, access to the site is proposed by two signalized intersections with Jackson Road, one signalized intersection with South Watt Avenue, one unsignalized right-in, right-out intersection with Jackson Road, and four unsignalized right-in, right-out intersections with South Watt Avenue. Rock Creek Parkway is proposed as the major internal site roadway, connecting Jackson Road with South Watt Avenue.

Trip Generation

Trip generation of the project and alternative is based upon information on trip generation compiled by the Institute of Transportation Engineers (ITE) (Trip Generation, Eighth Edition, 2008), adjusted for local mode choice and trip internalization characteristics through the utilization of SACOG's Sacramento Regional Travel Simulation Model (SACSIM). The ITE estimates are based on data collected primarily in suburban settings. Accordingly, the vehicular trip generation is based upon an environment with little pedestrian, bicycle, and transit utilization. In addition, the ITE estimates do not account for the number of trips that begin and end within the project site, without travelling on the existing external roadway network (Jackson Road and South Watt Avenue). Direct use of the ITE estimates without adjustments for mode choice and internalization would ignore the site-specific land use and transportation characteristics of the project and site, and would likely overestimate the impacts of the project.

This analysis has utilized SACOG's Sacramento Regional Travel Simulation Model (SACSIM) to estimate mode choice and trip internalization characteristics of the project. Unlike the ITE

estimates, SACSIM considers land use densities, mixed uses, street patterns, pedestrian and bicycle networks, and transit accessibility in its calculations.

Note that while there are no transit services currently available adjacent to the project site, future plans anticipate frequent transit service along both the Jackson Road and South Watt Avenue corridors. Accordingly, SACSIM predicts greater levels of transit utilization in the future than in the near term. Separate trip generation estimates have therefore been prepared for existing and cumulative scenarios.

Tables 5.10-15 through 5.10-18 present the estimated trip generation for the project and alternative for both existing and cumulative scenarios. Additional information on the derivation of project and alternative trip generation is included in the technical appendices.

Trip Distribution

The distribution of trips associated with development on the project site was derived utilizing SACSIM, observations of travel patterns near the site, and knowledge of the proposed access locations associated with the site. Trip distribution varies by land use and time period. Figure 5.10-9 illustrates the existing scenario trip distribution based upon project traffic during the a.m. and p.m. peak hours.

5.10.4 IMPACTS AND MITIGATION MEASURES

Method of Analysis

Full development of the project and alternative are assumed to occur “instantaneously.” In this manner, the traffic and impacts associated with the project and alternative can be directly compared to known and measured conditions. Existing scenario impacts are determined by comparing the traffic operating conditions associated with the project or alternative with the traffic operating conditions associated with the existing (without project) conditions.

For the cumulative scenarios, traffic associated with full development of the project and alternative have been added to future year traffic on the roadway system. The future year forecasts were developed through use of SACSIM. The SACSIM database utilized in this analysis includes the land use and transportation networks associated with the City's 2030 General Plan within City boundaries, the land use and transportation networks associated with the County's proposed 2030 General Plan Update within the unincorporated County, and year 2030 land use estimates and networks elsewhere. The regional travel model encompasses the entire Sacramento region, and forecasts peak hour and daily traffic volumes based upon projections of future land use and transportation networks throughout the region.

Cumulative impacts are determined by comparing the traffic operating conditions associated with the project and alternative with the traffic operating conditions associated with the cumulative (no project) scenario.

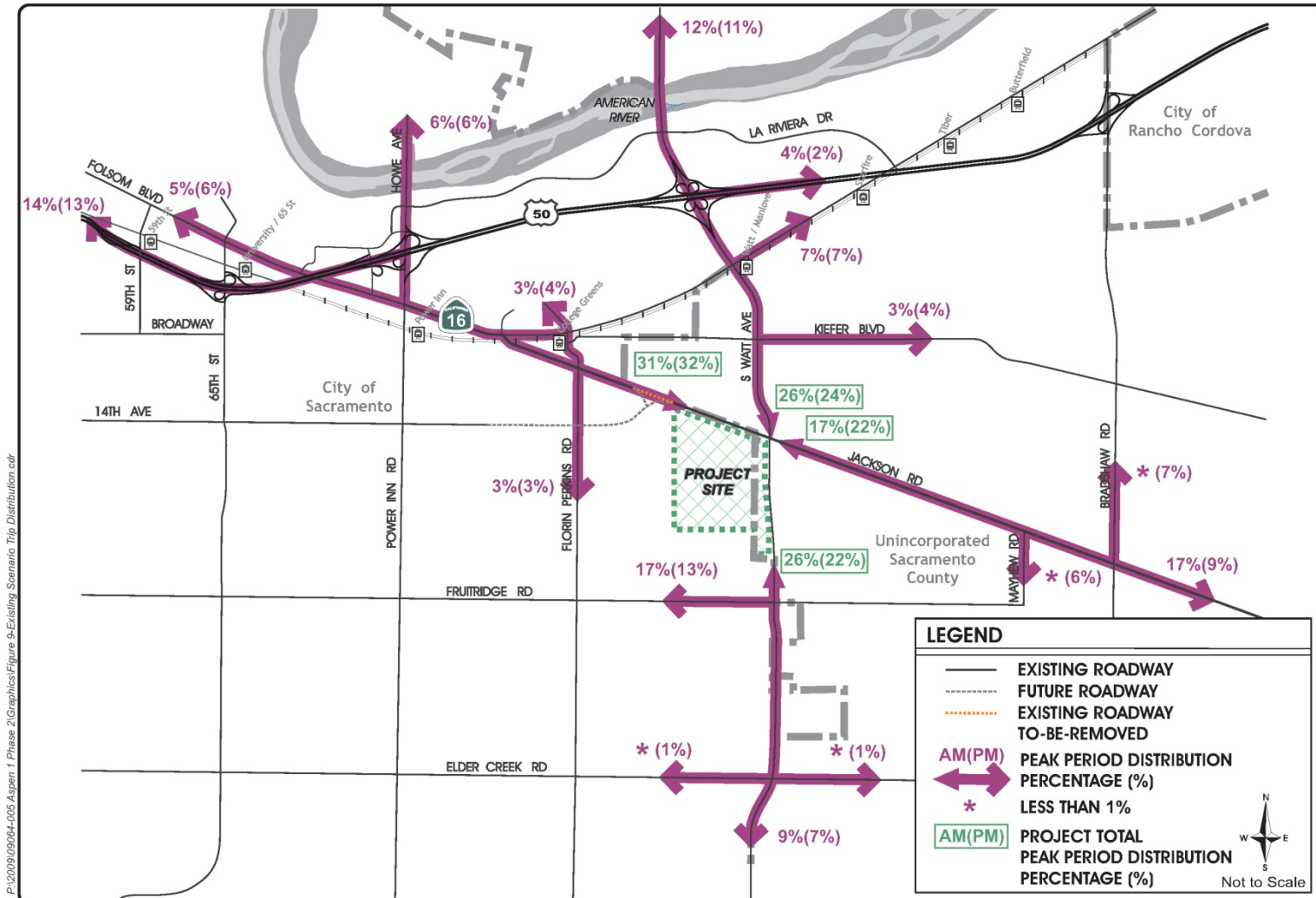
Table 5.10-15 Proposed Project Existing Scenario Trip Generation							
Land Use	Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
ITE Gross Trips							
Residential	8,698	137	505	642	514	278	792
Retail	10,395	138	89	227	484	503	987
Office	521	62	9	71	19	93	112
School	1,097	187	153	340	62	66	128
Total	20,711	524	756	1,280	1,079	940	2,019
Adjustment for Mode Choice and Internalization							
Residential	-896	-7	-93	-100	-72	-24	-96
Retail	-1,501	-30	-14	-44	-79	-89	-168
Office	-59	-8	-2	-10	-5	-28	-33
School	-198	-28	-53	-81	-12	-5	-17
Total	-2,654	-73	-162	-235	-168	-146	-314
Net External Trips							
Residential	7,802	130	412	542	442	254	696
Retail	8,894	108	75	183	405	414	819
Office	462	54	7	61	14	65	79
School	899	159	100	259	50	61	111
Total	18,057	451	594	1,045	911	794	1,705
<i>Source: DKS Associates, 2011, based on ITE Trip Generation, Eighth Edition, and SACSIM Model Forecasts.</i>							

Table 5.10-16 Proposed Project Cumulative Scenario Trip Generation							
Land Use	Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
ITE Gross Trips							
Residential	8,698	137	505	642	514	278	792
Retail	10,395	138	89	227	484	503	987
Office	521	62	9	71	19	93	112
School	1,097	187	153	340	62	66	128
Total	20,711	524	756	1,280	1,079	940	2,019
Adjustment for Mode Choice and Internalization							
Residential	-1,821	-30	-168	-198	-124	-64	-188
Retail	-1,857	-32	-7	-39	-74	-94	-168
Office	-83	-6	-3	-9	-2	-27	-29
School	-165	-53	-63	-116	9	-13	-4
Total	-3,926	-121	-241	-362	-191	-198	-389
Net External Trips							
Residential	6,877	107	337	444	390	214	604
Retail	8,538	106	82	188	410	409	819
Office	438	56	6	62	17	66	83
School	932	134	90	224	71	53	124
Total	16,785	403	515	918	888	742	1,630
<i>Source: DKS Associates, 2011, based on ITE Trip Generation, Eighth Edition, and SACSIM Model Forecasts.</i>							

Table 5.10-17 No School Alternative Existing Scenario Trip Generation							
Land Use	Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
ITE Gross Trips							
Residential	9,360	151	546	697	553	302	855
Retail	10,395	138	89	227	484	503	987
Office	521	62	9	71	19	93	112
Total	20,276	351	644	995	1,056	898	1,954
Adjustment for Mode Choice and Internalization							
Residential	-964	-8	-100	-108	-78	-27	-105
Retail	-1,501	-30	-14	-44	-79	-89	-168
Office	-59	-8	-2	-10	-5	-28	-33
Total	-2,524	-46	-116	-162	-162	-144	-306
Net External Trips							
Residential	8,396	143	446	589	475	275	750
Retail	8,894	108	75	183	405	414	819
Office	462	54	7	61	14	65	79
Total	17,752	305	528	833	894	754	1,648
<i>Source: DKS Associates, 2011, based on ITE Trip Generation, Eighth Edition, and SACSIM Model Forecasts.</i>							

Table 5.10-18 No School Alternative Cumulative Scenario Trip Generation							
Land Use	Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
ITE Gross Trips							
Residential	9,360	151	546	697	553	302	855
Retail	10,395	138	89	227	484	503	987
Office	521	62	9	71	19	93	112
Total	20,276	351	644	995	1,056	898	1,954
Adjustment for Mode Choice and Internalization							
Residential	-1,960	-33	-181	-214	-134	-70	-204
Retail	-1,857	-32	-7	-39	-74	-94	-168
Office	-83	-6	-3	-9	-2	-27	-29
Total	-3,900	-71	-191	-262	-210	-191	-401
Net External Trips							
Residential	7,400	118	365	483	419	232	651
Retail	8,538	106	82	188	410	409	819
Office	438	56	6	62	17	66	83
Total	16,376	280	453	733	846	707	1,553
<i>Source: DKS Associates, 2011, based on ITE Trip Generation, Eighth Edition, and SACSIM Model Forecasts.</i>							

**Figure 5.10-9
 Existing Scenario Trip Distribution**



P:\2009\09\064-005 Aspen 1 Phase 2\Graphics\Figure 9-Existing Scenario Trip Distribution.cdr

**FIGURE 5.10-9
 EXISTING SCENARIO TRIP DISTRIBUTION**

Thresholds of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. For purposes of this analysis, an impact is considered significant if implementation of the project would have the effects described below.

The standards of significance in this analysis are based upon current practice of the appropriate regulatory agencies. For facilities in the jurisdiction of the City of Sacramento, the standards defined in the City's *Traffic Impact Analysis Guidelines* (City of Sacramento, February, 1996) have been used, updated with the adopted LOS policies of the 2030 General Plan. For facilities in the jurisdiction of the County of Sacramento, the standards defined in the County's *Traffic Impact Analysis Guidelines* (County of Sacramento, July 2004) have been used. For traffic flow on the freeway system, the standards of Caltrans have been used.

Roadway Segments

In the City of Sacramento, a significant traffic impact occurs when:

- The traffic generated by a project degrades LOS from an acceptable condition to an unacceptable condition; or
- The LOS (without project) is unacceptable, and project generated traffic increases the Volume-to-Capacity Ratio (V/C ratio) by 0.02 or more.

In the County of Sacramento, a significant traffic impact occurs when:

- The traffic generated by a project degrades LOS from an acceptable condition to an unacceptable condition; or
- The LOS (without project) is unacceptable, and project generated traffic increases the Volume-to-Capacity Ratio (V/C ratio) by more than 0.05.

Signalized Intersections

In the City of Sacramento, a significant traffic impact occurs when:

- The traffic generated by a project degrades peak period LOS from an acceptable condition to an unacceptable condition; or
- The LOS (without project) is unacceptable, and project generated traffic increases the peak period average vehicle delay by five seconds or more.

In the County of Sacramento, a significant traffic impact occurs when:

- The traffic generated by a project degrades LOS from an acceptable condition to an unacceptable condition; or
- The LOS (without project) is unacceptable, and project generated traffic increases the Volume-to-Capacity Ratio (V/C ratio) by more than 0.05.

For Caltrans facilities, a significant traffic impact occurs when:

- The traffic generated by a project degrades LOS from an acceptable condition to an unacceptable condition; or
- The LOS (without project) is unacceptable, and project generates any traffic increase.

Unsignalized Intersections

In the City of Sacramento, a significant traffic impact occurs when:

- The traffic generated by a project degrades peak period LOS from an acceptable condition to an unacceptable condition; or
- The LOS (without project) is unacceptable, and project generated traffic increases the peak period average vehicle delay by five seconds or more.

In the County of Sacramento, a significant traffic impact occurs when:

- Result in an unsignalized intersection movement/approach operating at an acceptable LOS to deteriorate to an unacceptable LOS, and also cause the intersection to meet a traffic signal warrant; or
- For an unsignalized intersection that meets a signal warrant, increase the delay by more than 5 seconds at a movement/approach that is operating at an unacceptable LOS without the project.

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;
- 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; 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 access to transit.

Bicycle Facilities

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

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

Pedestrian Circulation

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

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

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.

Construction-Related Traffic Impacts

The project would have a temporarily significant impact during construction if it would:

- Degrade an intersection or roadway to an unacceptable level of service;
- Cause inconveniences to motorists due to prolonged road closures; or,
- Result in increased frequency of potential conflicts between vehicles, pedestrians, and bicyclists.

Traffic Volumes

Existing Plus Project

Figures 5.10-10(a) through (c) illustrate a.m. peak hour and p.m. peak hour traffic volumes associated with the Existing Plus Project scenario.

Existing Plus No School Alternative

Figures 5.10-11(a) through (c) illustrate a.m. peak hour and p.m. peak hour traffic volumes associated with the Existing Plus No School Alternative scenario.

Intersection Geometry

Existing Plus Project and Existing Plus No School Alternative Scenarios

Figures 5.10-10(a) through (c) and 5.10-11(a) through (c) illustrate intersection geometry (number of approach lanes and traffic control). Compared to existing conditions, an exclusive right turn lane is added on the eastbound approach to the intersection of Jackson Road and South Watt Avenue. Exclusive Jackson Road and South Watt Avenue left turn lanes are assumed at the following three signalized intersections associated with the project and alternative:

- Rock Creek Parkway and Jackson Road
- Lot B / Lot A Access Road and Jackson Road
- South Watt Avenue and Rock Creek Parkway

Figure 5.10-10(a)
Existing Plus Project Conditions – Intersection Volumes and Geometry


1 South Watt Avenue / Folsom Blvd		2 South Watt Avenue / Klefer Boulevard		3 South Watt Avenue / Jackson Road	
668 (469) 851 (1366) 1004 (934)	580 (859) 311 (493) 86 (281)	118 (28) 929 (1186) 226 (603)	392 (378) 186 (109) 140 (179)	108 (131) 659 (1011) 207 (274)	440 (176) 484 (190) 95 (103)
441 (694) 477 (528) 182 (171)	74 (80) 1421 (1345) 222 (141)	47 (138) 112 (270) 26 (31)	52 (6) 1231 (1076) 148 (146)	106 (227) 182 (466) 51 (82)	67 (88) 893 (833) 50 (82)
4 South Watt Avenue / Fultridge Road		5 South Watt Avenue / Elder Creek Road		6 Howe Ave / US 50 WB - College Town	
318 (117) 458 (856) 22 (33)	8 (9) 149 (123) 34 (22)	198 (124) 321 (844) 26 (6)	36 (41) 178 (163) 45 (50)	299 (428) 1133 (1727)	609 (657) 608 (348) 434 (633)
195 (385) 159 (204) 51 (103)	144 (88) 829 (565) 18 (18)	84 (129) 143 (187) 34 (146)	115 (47) 885 (467) 53 (66)	62 (235) 246 (564)	1314 (1759) 844 (726)
7 Howe Avenue / US 50 EB Ramps		8 Howe Ave - Power Inn Rd / Folsom Bl		9 Power Inn Road / 14th Avenue	
473 (882) 1268 (1995)		259 (121) 1396 (1562) 565 (1066)	507 (718) 901 (554) 217 (299)	237 (602) 839 (1476) 2 (56)	45 (49) 72 (71) 15 (23)
697 (882) 969 (743)	1500 (1657) 329 (519)	134 (218) 213 (609) 86 (117)	400 (221) 1192 (1256) 220 (200)	387 (230) 20 (33) 128 (167)	179 (165) 1592 (916) 14 (8)
10 Notre Dame - Jackson Rd / Folsom Bl		11 Florin Perkins Road / Jackson Road		12 Bradshaw Road / Jackson Road	
162 (117) 8 (16) 14 (10)	51 (24) 991 (846) 4 (4)	7 (6) 517 (488) 34 (130)	246 (51) 414 (230) 190 (125)	265 (351) 476 (1484) 117 (220)	294 (206) 546 (181) 19 (39)
61 (98) 330 (917) 396 (890)	462 (314) 6 (4) 0 (3)	10 (11) 212 (526) 245 (311)	146 (126) 862 (895) 76 (173)	344 (221) 158 (594) 45 (57)	60 (52) 1423 (625) 15 (18)
Notes: AM (PM) Peak Hour					
		FIGURE 5.10-10a			
		EXISTING PLUS PROJECT CONDITIONS INTERSECTION VOLUMES, GEOMETRY			

Figure 5.10-10(b)
Existing Plus Project Conditions – Intersection Volumes and Geometry

13	Julliard - Florin Perkins Rd / Folsom Bl	14	Florin Perkins Road / Kiefer Boulevard	19	Rock Creek Parkway / Jackson Road
34 (36) ↖ 177 (173) ↗ 50 (116)	58 (50) ↑ 415 (534) ↓ 250 (228)	↖ 392 (403) ↗ 87 (224)	↖ 142 (88) ↗ 87 (109)	↖ 634 (348) ↗ 13 (40)	
23 (45) ↖ 210 (691) ↑ 94 (193) ↗	652 (336) ↖ 118 (165) ↗ 340 (381) ↘		895 (662) ↑ 84 (180)	249 (651) ↖ 71 (196)	182 (164) ↖ 20 (41) ↘
20	Rock Creek Parkway / Street 7	21	Rock Creek Parkway / Street 16	22	Rock Creek Parkway / Street 13
9 (33) ↖ 50 (140) ↗ 17 (58)	7 (18) 15 (25)		43 (56) ↖ 21 (38)	4 (13) ↖ 63 (154) ↗ 0 (0)	1 (4) 6 (1)
45 (27) ↖ 2 (2)		27 (18) 35 (67) ↖	2 (5) 122 (127) ↖ 15 (43)	13 (7) ↖ 3 (2)	
23	Rock Creek Parkway / Street 18	24	Rock Creek Parkway / Street 11	25	Rock Creek Parkway / Street 20
	0 (0) ↖ 6 (1)	36 (67) ↖ 36 (88) ↗ 0 (3)	17 (35) 15 (4)		0 (0) 0 (0)
13 (7) 0 (0) ↖	1 (4) 126 (168) ↖ 9 (10)	26 (84) ↖ 8 (41)		26 (84) 0 (0) ↖	17 (35) 91 (88) ↖ 0 (0)
26	Rock Creek Pkwy / Aspen Prom SW	27	Rock Creek Pkwy / Aspen Prom NE	28	Street 30 / Rock Creek Parkway
19 (55) ↖ 40 (78) ↗ 0 (1)	28 (75) 0 (1)		2 (11) ↖ 1 (3)	62 (31) ↖ 12 (38)	
41 (43) ↖ 60 (60)		39 (40) 2 (4) ↖	27 (73) 67 (70) ↖ 24 (12)	8 (10) 69 (100) ↖ 23 (28)	65 (27) ↖ 44 (27)

Notes: AM (PM) Peak Hour

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FIGURE 5.10-10b
EXISTING PLUS PROJECT CONDITIONS
INTERSECTION VOLUMES, GEOMETRY

Figure 5.10-10(c)
Existing Plus Project Conditions – Intersection Volumes and Geometry

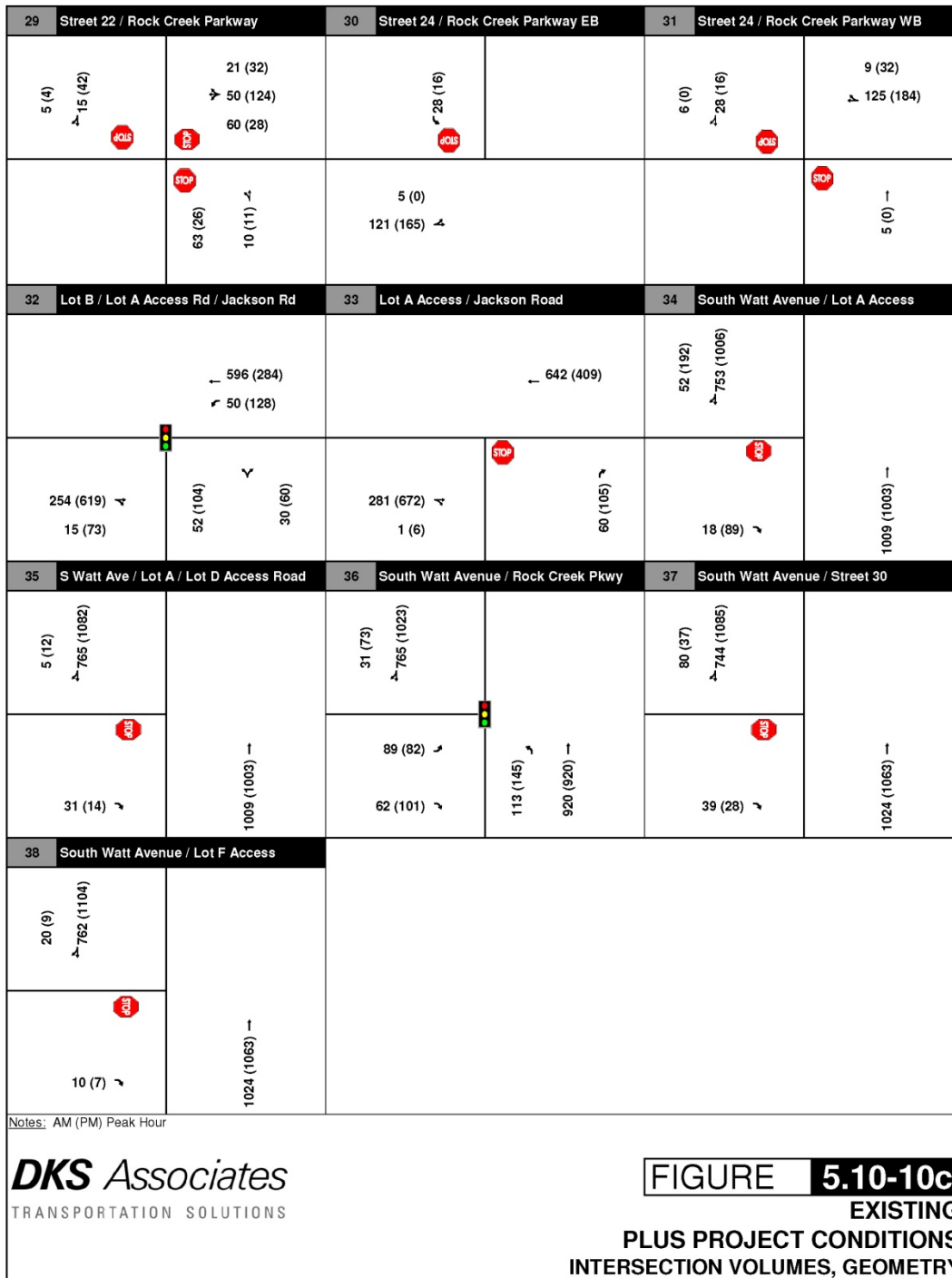


Figure 5.10-11(a)
Existing Plus No School Alternative Conditions – Intersection Volumes and Geometry

1	South Watt Avenue / Folsom Blvd	2	South Watt Avenue / Klefer Boulevard	3	South Watt Avenue / Jackson Road
668 (474) 851 (1364) 1004 (932)	580 (855) 311 (492) 86 (279)	118 (28) 828 (1198) 226 (592)	392 (366) 186 (104) 140 (180)	108 (134) 659 (1017) 207 (276)	440 (194) 484 (191) 95 (101)
441 (635) 477 (528) 182 (173)	74 (80) 1421 (1344) 222 (137)	47 (135) 112 (274) 26 (31)	52 (6) 1231 (1092) 148 (147)	106 (228) 182 (457) 51 (82)	67 (87) 893 (827) 50 (82)
4	South Watt Avenue / Fruhlridge Road	5	South Watt Avenue / Elder Creek Road	6	Howe Ave / US 50 WB - College Town
318 (107) 458 (865) 22 (31)	8 (9) 149 (126) 34 (21)	198 (130) 321 (831) 26 (14)	36 (40) 178 (166) 45 (83)	299 (430) 1133 (1715)	609 (642) 608 (348) 434 (625)
195 (400) 159 (214) 51 (107)	144 (87) 829 (552) 18 (6)	84 (130) 143 (192) 34 (143)	115 (47) 885 (469) 53 (56)	62 (236) 246 (569)	1314 (1731) 844 (751)
7	Howe Avenue / US 50 EB Ramps	8	Howe Ave - Power Inn Rd / Folsom Bl	9	Power Inn Road / 14th Avenue
473 (887) 1268 (1968)		259 (122) 1396 (1526) 565 (1066)	507 (702) 901 (525) 217 (297)	237 (518) 839 (1435) 2 (70)	45 (51) 72 (78) 15 (23)
697 (878) 969 (737)	1500 (1676) 329 (524)	134 (217) 213 (600) 86 (147)	400 (216) 1192 (1298) 220 (207)	387 (237) 20 (38) 128 (165)	173 (164) 1592 (951) 14 (8)
10	Notre Dame - Jackson Rd / Folsom Bl	11	Florin Perkins Road / Jackson Road	12	Bradshaw Road / Jackson Road
162 (113) 8 (16) 14 (10)	51 (24) 991 (847) 4 (4)	7 (6) 517 (486) 34 (104)	246 (54) 414 (222) 190 (127)	265 (327) 476 (1461) 117 (266)	294 (183) 546 (208) 19 (40)
61 (104) 330 (890) 396 (910)	462 (270) 6 (5) 0 (3)	10 (11) 212 (541) 245 (316)	146 (91) 862 (870) 76 (177)	344 (248) 158 (540) 45 (76)	60 (58) 1423 (618) 15 (18)

Notes: AM (PM) Peak Hour

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 TRANSPORTATION SOLUTIONS

FIGURE 5.10-11a
EXISTING PLUS NO SCHOOL ALTERNATIVE CONDITIONS
INTERSECTION VOLUMES, GEOMETRY

Figure 5.10-11(b)
Existing Plus No School Alternative Conditions – Intersection Volumes and Geometry

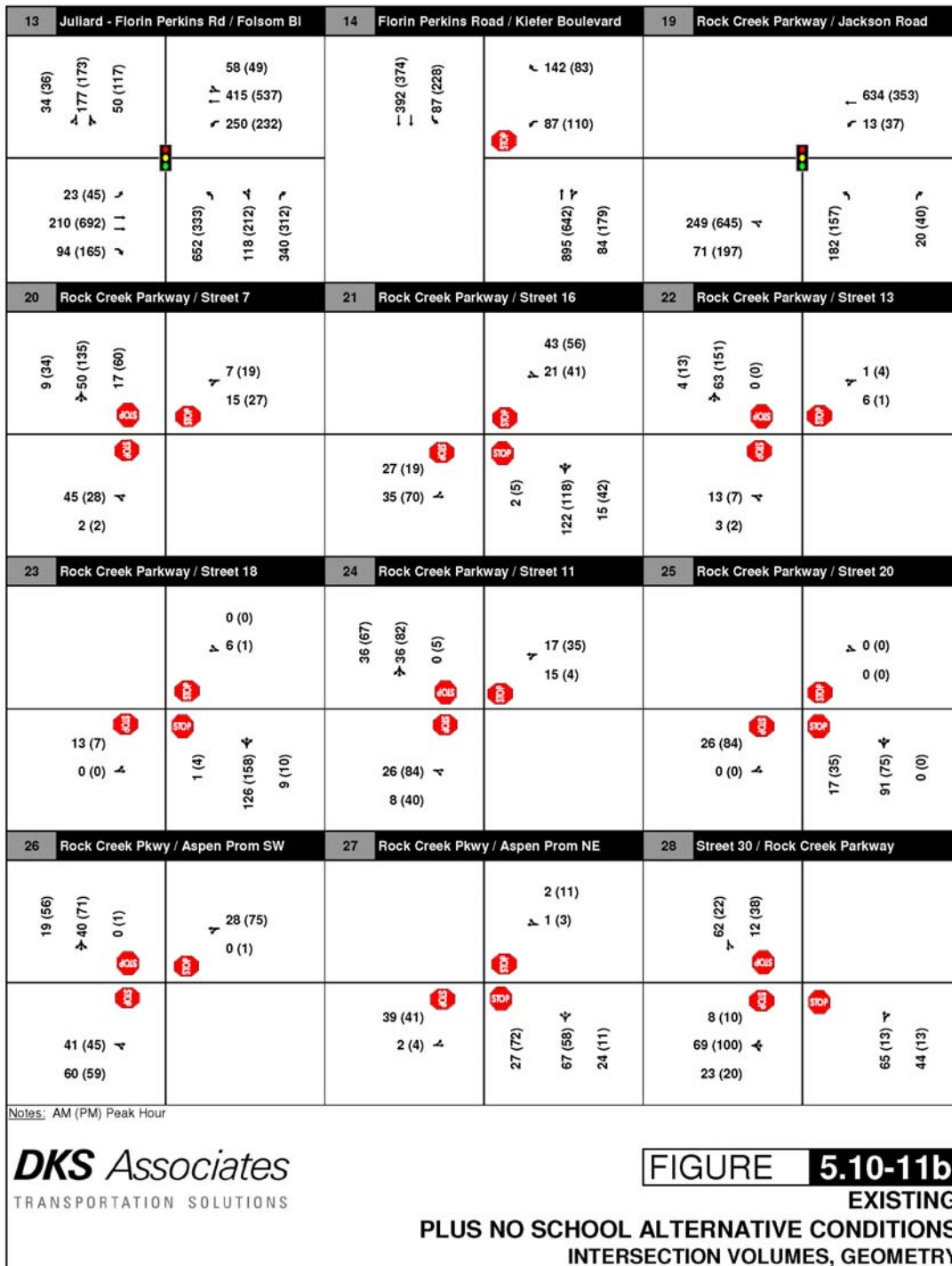
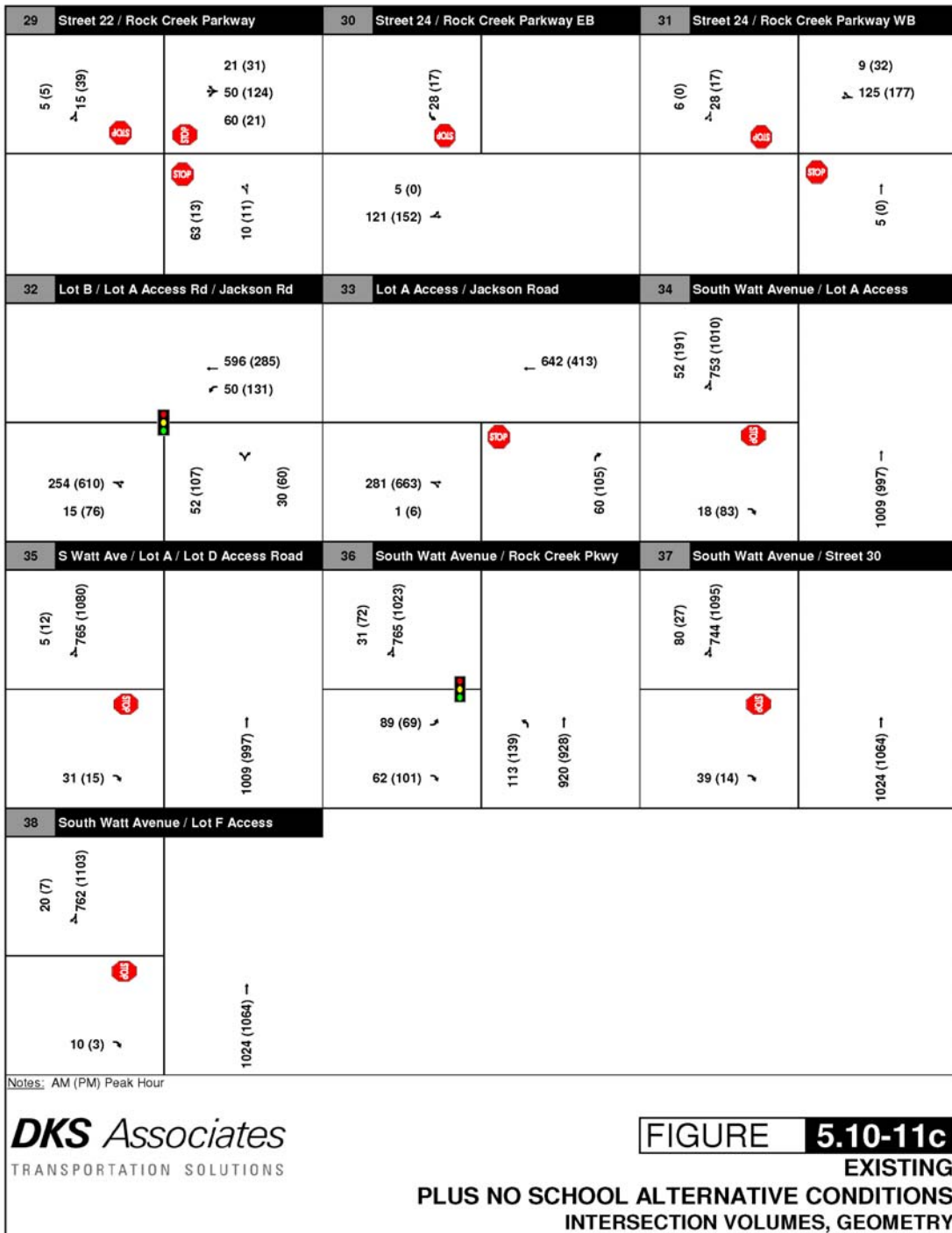


Figure 5.10-11(c)
Existing Plus No School Alternative Conditions – Intersection Volumes and Geometry



Project-Specific Impacts and Mitigation Measures (Existing Plus Project)

Impact 5.10-1 Intersections

Table 5.10-19 presents the intersection operating conditions associated with the existing plus project scenario. The project would increase traffic volumes at study area intersections and would cause significant impacts under the existing plus project scenario at the following intersections:

- (a) South Watt Avenue and Folsom Boulevard – At 75 percent of development (as measured by the p.m. peak hour trip generation) traffic from the project would result in LOS F conditions in the p.m. peak hour. This is considered a **significant impact**.
- (b) South Watt Avenue and Jackson Road – Traffic from the project would result in LOS E conditions in the p.m. peak hour. This is considered a **significant impact**.

Mitigation Measure(s)

- 5.10-1(a) *South Watt Avenue and Folsom Boulevard – This intersection is located in the Folsom Boulevard corridor. The Sacramento County General Plan acceptable level of service is LOS E at this location. Adding a third southbound left turn would mitigate the impact to a less than significant, but it is considered not feasible since it will require additional right of way, which is beyond the control of the applicant.*

Due to the recently constructed intersection improvements and built-up nature of this intersection, no short-term intersection improvements are identified. An urban interchange is included at this location in the 2035 Metropolitan Transportation Plan (MTP) for implementation in 2030. The applicant shall be required to pay a fair share contribution toward construction of the urban interchange.

*As no feasible mitigation measure has been identified at the subject intersection, this impact remains **significant and unavoidable**.*

- 5.10-1(b) *South Watt Avenue and Jackson Road - Provide two eastbound lanes through the intersection. The eastbound approach shall consist of a left turn lane, two through lanes, and a right turn lane. This mitigation measure shall be implemented by 90 percent of development as measured by the p.m. peak hour trip generation. This mitigation measure would improve the average intersection delay to 52.3 seconds at an acceptable LOS D. This mitigation measure would reduce the impact of the project to a **less than significant** level.*

Table 5.10-20 summarizes the intersection level of service with mitigation.

**Table 5.10-19
 Existing Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Existing		Existing Plus Project		Existing Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
1. South Watt Avenue and Folsom Blvd.	E	Signal	A.M.	D	52.0	D	52.4	D	52.5
			P.M.	E	78.1	F	80.7	E	76.5
2. South Watt Avenue and Kiefer Blvd.	E	Signal	A.M.	B	0.648 VC	B	0.659 VC	B	0.661 VC
			P.M.	C	0.708 VC	C	0.771 VC	C	0.762 VC
3. South Watt Avenue and Jackson Road	D	Signal	A.M.	D	51.0	D	54.3	D	54.3
			P.M.	D	52.8	E	55.5	E	55.3
4. South Watt Avenue and Fruitridge Road	D	Signal	A.M.	D	42.3	D	42.5	D	41.8
			P.M.	D	42.6	D	46.2	D	46.5
5. South Watt Avenue and Elder Creek Road	D	Signal	A.M.	D	42.3	D	44.0	D	43.8
			P.M.	D	45.4	D	45.1	D	46.3
6. Howe Avenue and US 50 Westbound Ramps / College Town Drive	E	Signal	A.M.	C	29.6	C	29.7	C	29.8
			P.M.	D	37.7	D	37.8	D	37.8

**Table 5.10-19
 Existing Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Existing		Existing Plus Project		Existing Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
7. Howe Ave. and US 50 Eastbound Ramps	E	Signal	A.M.	B	13.3	B	13.9	B	14.1
			P.M.	B	12.8	B	13.8	B	13.7
8. Howe Avenue / Power Inn Road and Folsom Boulevard	E	Signal	A.M.	D	37.8	D	38.5	D	38.5
			P.M.	D	44.9	D	46.0	D	47.5
9. Power Inn Road and 14th Avenue	D	Signal	A.M.	C	25.5	C	25.7	C	26.0
			P.M.	C	22.3	C	25.9	C	26.6
10. Notre Dame Drive / Jackson Road and Folsom Boulevard	E	Signal	A.M.	C	27.6	C	27.3	C	26.9
			P.M.	C	22.5	C	26.5	C	25.3
11. Florin Perkins Road and Jackson Road	E	Signal	A.M.	D	44.8	D	45.9	D	46.4
			P.M.	D	48.5	D	52.1	D	50.5
12. Bradshaw Road and Jackson Road	E	Signal	A.M.	F	1.111 VC	F	1.151 VC	F	1.120 VC
			P.M.	E	0.938 VC	E	0.951 VC	E	0.912 VC

**Table 5.10-19
 Existing Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Existing		Existing Plus Project		Existing Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
13. Julliard Drive / Florin Perkins Road and Folsom Boulevard	E	Signal	A.M.	C	31.3	C	32.3	C	32.4
			P.M.	D	43.8	D	47.0	D	45.8
14. Florin Perkins Road and Kiefer Blvd.	E	2-Way Stop	A.M.	A	2.6	A	2.8	A	2.6
			P.M.	A	3.3	A	3.6	A	3.0
19. Rock Creek Parkway and Jackson Road	D	Signal	A.M.			B	11.4	B	10.8
			P.M.			B	12.6	B	12.1
20. Rock Creek Parkway and Street 7	D	All-Way Stop	A.M.			A	7.3	A	7.3
			P.M.			A	8.2	A	8.2
21. Rock Creek Parkway and Street 16	D	All-Way Stop	A.M.			A	7.6	A	7.6
			P.M.			A	7.9	A	7.9
22. Rock Creek Parkway and Street 13	D	All-Way Stop	A.M.			A	7.2	A	7.2
			P.M.			A	7.7	A	7.7
23. Rock Creek Parkway and Street 18	D	All-Way Stop	A.M.			A	7.6	A	7.5
			P.M.			A	7.8	A	7.8

**Table 5.10-19
 Existing Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Existing		Existing Plus Project		Existing Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
24. Rock Creek Parkway and Street 11	D	All-Way Stop	A.M.			A	7.1	A	7.0
			P.M.			A	7.8	A	7.7
25. Rock Creek Parkway and Street 20	D	All-Way Stop	A.M.			A	7.5	A	7.4
			P.M.			A	7.8	A	7.8
26. Rock Creek Parkway and Aspen Promenade SW	D	All-Way Stop	A.M.			A	7.2	A	7.1
			P.M.			A	7.6	A	7.6
27. Rock Creek Parkway and Aspen Promenade NE	D	All-Way Stop	A.M.			A	7.5	A	7.4
			P.M.			A	7.8	A	7.7
28. Street 30 and Rock Creek Parkway	D	All-Way Stop	A.M.			A	7.6	A	7.3
			P.M.			A	7.7	A	7.6
29. Street 22 and Rock Creek Parkway	D	All-Way Stop	A.M.			A	7.7	A	7.2
			P.M.			A	7.9	A	7.8

**Table 5.10-19
 Existing Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Existing		Existing Plus Project		Existing Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
30. Street 24 and Rock Creek Parkway Eastbound	D	2-Way Stop	A.M.			A	1.9	A	2.0
			P.M.			A	0.8	A	0.9
31. Street 24 and Rock Creek Parkway Westbound	D	2-Way Stop	A.M.			A	2.2	A	2.3
			P.M.			A	0.7	A	0.8
32. Lot B / Lot A Access Road and Jackson Road	D	Signal	A.M.			A	8.6	A	8.3
			P.M.			B	16.0	B	16.3
33. Lot A Access and Jackson Road	D	2-Way Stop	A.M.			A	0.6	A	0.6
			P.M.			A	1.3	A	1.3
34. South Watt Avenue and Lot A Access	D	2-Way Stop	A.M.			A	0.1	A	0.1
			P.M.			A	1.0	A	0.9
35. South Watt Avenue and Lot A / Lot D Access Road	D	2-Way Stop	A.M.			A	0.3	A	0.2
			P.M.			A	0.1	A	0.1
36. South Watt Avenue and Rock Creek Parkway	D	Signal	A.M.			B	10.4	A	8.2
			P.M.			B	15.4	B	14.8

**Table 5.10-19
 Existing Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Existing		Existing Plus Project		Existing Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
37. South Watt Avenue and Street 30	D	2-Way Stop	A.M.			A	0.3	A	0.2
			P.M.			A	0.3	A	0.1
38. South Watt Avenue and Lot F Access	D	2-Way Stop	A.M.			A	0.1	A	0.0
			P.M.			A	0.1	A	0.0

Note: VC = Volume-to-Capacity Ratio for Critical Lane Methodology
 1. Level of Service
 2. Seconds of Delay

Source: DKS Associates, 2011.

**Table 5.10-20
 Existing Scenario Intersection Operating Conditions With Mitigation**

Intersection	Traffic Control	Peak Hour	Existing		Existing Plus Project				Existing Plus No School Alternative			
			LOS ¹	Delay ²	Without Mitigation		With Mitigation		Without Mitigation		With Mitigation	
					LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
3. South Watt Avenue and Jackson Road	Signal	P.M.	D	52.8	E	55.5	D	52.3	E	55.3	D	52.7
1. Level of Service 2. Seconds of Delay <i>Source: DKS Associates, 2011.</i>												

Impact 5.10-2 Roadway Segments

Table 5.10-21 presents the intersection operating conditions associated with the existing plus project scenario. The project would increase traffic volumes on study area roadway segments and would cause significant impacts under the existing plus project scenario at the following location:

- (a) South Watt Avenue - Jackson Road to Fruitridge Road – Traffic from the project would result in LOS F conditions in the p.m. peak hour, with an increase in the volume-to-capacity ratio of greater than 0.02. This is considered a **significant impact**.

Mitigation Measure(s)

- 5.10-2 *South Watt Avenue - Jackson Road to Fruitridge Road – Widen the roadway to four through travel lanes. This mitigation measure shall be implemented by 20 percent of development as measured by daily trip generation. This mitigation measure would improve the level of service to C at a volume-to-capacity ratio of 0.72. This mitigation measure would reduce the impact of the project to a **less than significant** level.*

Impact 5.10-3 Freeway Mainline

Table 5.10-22 presents the freeway mainline operating conditions associated with the existing plus project scenario. The project would increase traffic volumes on the freeway mainline. The changes in freeway mainline operating conditions do not exceed the standards of significance for impacts to the freeway mainline. The impacts of the project would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-4 Freeway Ramp Junctions

Table 5.10-23 presents the freeway ramp junction operating conditions associated with the existing plus project scenario. The project would increase traffic volumes at freeway ramp junctions. The changes in freeway ramp junction operating conditions do not exceed the standards of significance for impacts to the freeway ramp junctions. The impacts of the project would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

**Table 5.10-21
 Existing Scenario Roadway Segment Operating Conditions**

Roadway	Segment	Lanes	LOS Criteria	Existing			Existing Plus Project			Existing Plus No School Alternative		
				Volume	V/C ¹	LOS	Volume	V/C ¹	LOS	Volume	V/C ¹	LOS
South Watt Avenue	A. Kiefer Boulevard to Jackson Road	5 ²	E	29,192	0.81	D	30,946	0.86	D	31,030	0.86	D
	B. Jackson Road to Fruitridge Road	2	D	23,737	1.32	F	25,930	1.44	F	25,889	1.44	F
	C. Fruitridge Road to Elder Creek Road	2	D	20,705	1.15	F	20,580	1.14	F	20,618	1.15	F
Jackson Road	D. Folsom Blvd. to Florin Perkins Road	2	E	13,434	0.75	C	14,625	0.81	D	14,719	0.82	D
	E. East of Florin Perkins Road	2	E	10,343	0.57	A	13,900	0.77	C	14,029	0.78	C
	F. West of South Watt Avenue	2	D	10,343	0.57	A	14,343	0.80	C	14,434	0.80	D
	G. South Watt Ave. to Bradshaw Road	2	E	16,242	0.90	E	16,881	0.94	E	16,842	0.94	E

1. Based on moderate access control.
 2. Analysis based on two southbound lanes.

Source: DKS Associates, 2011.

**Table 5.10-22
 Existing Scenario Freeway Mainline Peak Hour Operating Conditions**

Direction	Segment	Lanes		Existing			Existing Plus Project			Existing Plus No School Alternative		
		Through	Auxiliary	Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS
A.M. Peak Hour												
Eastbound US 50	65th Street to Howe Avenue	4	1	8,307	38.54	E	8,315	38.62	E	8,279	38.27	E
	Howe Avenue to Watt Ave.	4	0	6,979	32.21	D	6,950	32.00	D	6,909	31.72	D
	Watt Ave. to Bradshaw Road	4	0	7,756	38.84	E	7,805	39.35	E	7,759	38.87	E
Westbound US 50	Bradshaw Road to Watt Ave.	4	0	7,564	36.94	E	7,564	36.94	E	7,559	36.89	E
	Watt Ave. to Howe Avenue	4	1	8,158	32.92	D	8,205	33.22	D	8,203	34.43	D
	Howe Avenue to 65th Street	4	1	8,453	36.47	E	8,574	39.43	E	8,565	37.40	E
P.M. Peak Hour												
Eastbound US 50	65th Street to Howe Avenue	4	1	8,150	37.10	E	8,373	39.18	E	8,382	39.27	E
	Howe Avenue to Watt Ave.	4	0	7,496	36.31	E	7,596	37.24	E	7,596	37.24	E
	Watt Ave. to Bradshaw Road	4	0	7,508	36.42	E	7,590	37.18	E	7,590	37.18	E
Westbound US 50	Bradshaw Road to Watt Ave.	4	0	7,721	38.47	E	7,782	39.11	E	7,747	38.74	E
	Watt Ave. to Howe Avenue	4	1	7,182	27.67	D	7,168	27.60	D	7,156	27.55	D
	Howe Avenue to 65th Street	4	1	7,733	34.05	D	7,797	34.52	D	7,808	34.61	D
Source: DKS Associates, 2011.												

**Table 5.10-23
 Existing Scenario Peak Hour Freeway Ramp Junction Level of Service**

Direction	Location	Junction Type	Existing		Existing Plus Project		Existing Plus No School Alternative	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
A.M. Peak Hour								
Eastbound US 50	65th Street Exit	Single-Lane Diverge	518	E	515	E	539	E
	65th Street Loop Entrance	Single-Lane Merge	513	E	515	E	517	E
	Howe Ave. Loop Entrance	Single-Lane Merge	474	E	473	E	471	E
	Howe Ave. Slip Entrance	Single-Lane Merge	349	D	329	D	326	D
	Watt Avenue Exit	Two-Lane Diverge	1,186	A	1,170	A	1,167	A
	Watt Ave. C-D Entrance	Single-Lane Merge	1,963	C	2,025	C	2,017	C
Westbound US 50	Watt Avenue Exit	Two-Lane Diverge	1,598	B	1,578	B	1,570	B
	Watt Ave. Loop Entrance	Single-Lane Merge	708	C	710	C	708	C
	Watt Ave. Slip Entrance	Lane Addition	1,484	E	1,509	E	1,506	E
	Howe Avenue Exit	Major Diverge	1,656	D	1,651	D	1,673	D
	Howe Ave. Loop Entrance	Single-Lane Merge	825	E	844	E	855	E
	Howe Ave. Slip Entrance	Lane Addition	753	C	797	C	800	C
	65th Street Loop Entrance	Single-Lane Merge	341	E	354	E	344	E
	65th Street Slip Entrance	Single-Lane Merge	232	E	238	E	240	E

**Table 5.10-23
 Existing Scenario Peak Hour Freeway Ramp Junction Level of Service**

Direction	Location	Junction Type	Existing		Existing Plus Project		Existing Plus No School Alternative	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
P.M. Peak Hour								
East-bound US 50	65th Street Exit	Single-Lane Diverge	592	E	660	E	645	E
	65th Street Loop Entrance	Single-Lane Merge	489	E	510	E	505	E
	Howe Ave. Loop Entrance	Single-Lane Merge	891	E	882	E	887	E
	Howe Ave. Slip Entrance	Single-Lane Merge	501	D	519	D	524	D
	Watt Avenue Exit	Two-Lane Diverge	1,570	B	1,600	B	1,589	B
	Watt Ave. C-D Entrance	Single-Lane Merge	1,582	C	1,594	C	1,583	C
West-bound US 50	Watt Avenue Exit	Two-Lane Diverge	2,146	B	2,189	B	2,167	B
	Watt Ave. Loop Entrance	Single-Lane Merge	566	C	545	C	543	C
	Watt Ave. Slip Entrance	Lane Addition	1,041	C	1,030	C	1,033	C
	Howe Avenue Exit	Major Diverge	1,659	C	1,638	C	1,615	C
	Howe Ave. Loop Entrance	Single-Lane Merge	760	E	726	E	751	E
	Howe Ave. Slip Entrance	Lane Addition	738	C	761	C	768	C
	65th Street Loop Entrance	Single-Lane Merge	328	D	352	D	361	D
	65th Street Slip Entrance	Single-Lane Merge	229	D	232	D	244	D

Source: DKS Associates, 2011.

Impact 5.10-5 Freeway Weaving Segments

Table 5.10-24 presents the freeway weaving segment operating conditions associated with the existing plus project scenario. The project would increase traffic volumes at freeway weaving segments. The changes in freeway weaving segment operating conditions do not exceed the standards of significance for impacts to the freeway weaving segments. The impacts of the project would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-6 Freeway Ramp Queuing

Table 5.10-25 presents the freeway ramp queuing associated with the existing plus project scenario. The project would increase traffic volumes on the freeway ramps. The changes in freeway ramp queuing do not exceed the available storage space. The impacts of the project would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-7 Pedestrian and Bicycle Circulation

The project would not remove any existing or planned pedestrian facility. The project would not remove any existing bicycle facility or any facility that is planned in the City of Sacramento Bikeway Master Plan. The project shall be required to construct all frontage improvements along South Watt Avenue, Jackson Road, and all new roadways in the project vicinity, in conformance with City design standards in coordination with Caltrans and Sacramento County. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards. Therefore, the impact of the project on pedestrian and bicycle circulation is **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure

None required.

Impact 5.10-8 Transit System

Public transit is not currently provided to the project site. At the time the project application was submitted to the City, no plans for the provision of public transit services were proposed. The project would increase demands for public transit facilities to be provided to the project site. No public transit services are currently proposed as part of the project. RT is currently working in coordination with Sacramento County to develop a long-range plan to provide BRT along S. Watt Avenue and Jackson Road. Therefore, the impact of the project on the transit system is **potentially significant**.

**Table 5.10-24
 Existing Scenario Freeway Weaving Segment Peak Hour Operating Conditions**

Direction	Segment	Existing			Existing Plus Project			Existing Plus No School Alternative		
		Weaving Segment Speed (mph)	Weaving Segment Density (pcplph)	LOS	Weaving Segment Speed (mph)	Weaving Segment Density (pcplph)	LOS	Weaving Segment Speed (mph)	Weaving Segment Density (pcplph)	LOS
A.M. Peak Hour										
Eastbound US 50	65th Street Slip Entrance to Howe Avenue Exit	53.6	35.3	E	53.5	35.4	E	53.5	35.3	E
Westbound US 50	Hornet Drive Entrance to 65th Street Exit	59.6	32.3	D	59.4	32.9	D	59.4	32.8	D
P.M. Peak Hour										
Eastbound US 50	65th Street Slip Entrance to Howe Avenue Exit	54.4	34.1	D	53.7	35.5	E	53.6	35.6	E
Westbound US 50	Hornet Drive Entrance to 65th Street Exit	56.8	31.0	D	56.4	31.5	D	56.4	31.5	D

Source: DKS Associates, 2011.

**Table 5.10-25
 Existing Scenario Freeway Ramp Termini Queuing**

Ramp	Movement	Available Queue Length (feet) ¹	Peak Hour	Estimated Maximum Queue (feet)		
				Existing	Existing Plus Project	Existing Plus No School Alternative
US 50 Eastbound Exit to Howe Ave.	Left	1,200	A.M.	500	450	450
			P.M.	800	850	850
	Right	1,300	A.M.	750	850	900
			P.M.	600	800	800
US 50 Westbound Exit to Howe Ave.	Left	1,350	A.M.	600	600	600
			P.M.	1,200	1,250	1,250
	Through	975	A.M.	575	600	600
			P.M.	650	650	650
	Right	2,100	A.M.	1,150	1,200	1,200
			P.M.	1,300	1,300	1,300

1. Eastbound measured from intersection stop bar to Hornet Drive ramp split. Westbound measured from intersection stop bar to gore point. Total queue length in all lanes associated with the subject movement.

Source: DKS Associates, 2011.

Mitigation Measure(s)

5.10-8 *The project applicant shall coordinate with Regional Transit to provide transit facilities to serve the project area along Jackson Road and / or South Watt Avenue.*

This mitigation measure would reduce the impact of the project to a **less than significant** level.

Impact 5.10-9 Parking

Table 5.10-26 presents the parking requirements of the project, as identified in the City zoning code. The proposed project would not eliminate or adversely affect an existing parking facility or interfere with the implementation of any proposed parking facility. The project applicant will provide a parking supply consistent with City standards. The impact would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure

None required.

Scenario	Land Use	Size	City Zoning Requirements	
			Rate	Spaces
Project	Single-family Residential	482 units	1 spaces per dwelling unit	482
	Multi-family Residential	883 units	1.5 spaces per dwelling unit plus 1 guest space per 15 units	1,384
	Office	29,500 s.f.	1 space per 400 square feet	74
	Retail	192,500 s.f.	1 space per 250 square feet	770
	School	850 students	Determined by Planning Commission if Special Permit Required	
No School Alternative	Single-family Residential	561 units	1 spaces per dwelling unit	561
	Multi-family Residential	883 units	1.5 spaces per dwelling unit plus 1 guest space per 15 units	1,384
	Office	29,500 s.f.	1 space per 400 square feet	74
	Retail	192,500 s.f.	1 space per 250 square feet	770

Source: DKS Associates, 2011, based upon City Zoning Ordinance.

Alternative-Specific Impacts and Mitigation Measures (Existing Plus No School Alternative Scenario)

Impact 5.10-10 Intersections

Table 5.10-19 presents the intersection operating conditions associated with the Existing Plus No School Alternative scenario. The alternative would increase traffic volumes at study area intersections and would cause significant impacts under the Existing Plus No School Alternative scenario at the following intersection:

- (a) South Watt Avenue and Jackson Road - Traffic from the alternative would result in LOS E conditions in the p.m. peak hour. This is considered a **significant impact**.

Mitigation Measure(s)

- 5.10-10 *South Watt Avenue and Jackson Road - Provide two eastbound lanes through the intersection. The eastbound approach shall consist of a left turn lane, two through lanes, and a right turn lane. This mitigation measure shall be implemented by 95 percent of development as measured by the p.m. peak hour trip generation. This mitigation measure would improve the average intersection delay to 52.7 seconds at an acceptable LOS D. This mitigation measure would reduce the impact of the alternative to a **less than significant level**.*

Table 5.10-20 summarizes the intersection level of service with mitigation.

Impact 5.10-11 Roadway Segments

Table 5.10-21 presents the intersection operating conditions associated with the Existing Plus No School Alternative scenario. The alternative would increase traffic volumes on study area roadway segments and would cause significant impacts under the Existing Plus No School Alternative scenario at the following location:

- (a) South Watt Avenue - Jackson Road to Fruitridge Road – Traffic from the alternative would result in LOS F conditions in the p.m. peak hour, with an increase in the volume-to-capacity ratio of greater than 0.02. This is considered a **significant impact**.

Mitigation Measure(s)

- 5.10-11 *South Watt Avenue - Jackson Road to Fruitridge Road – Widen the roadway to four through travel lanes. This mitigation measure shall be implemented by 20 percent of development as measured by daily trip generation. This mitigation measure would improve the level of service to C at a volume-to-capacity ratio of 0.72. This mitigation measure would reduce the impact of the alternative to a **less than significant level**.*

Impact 5.10-12 Freeway Mainline

Table 5.10-22 presents the freeway mainline operating conditions associated with the Existing Plus No School Alternative scenario. The alternative would increase traffic volumes on the freeway mainline. The changes in freeway mainline operating conditions do not exceed the standards of significance for impacts to the freeway mainline. The impacts of the alternative would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-13 Freeway Ramp Junctions

Table 5.10-23 presents the freeway ramp junction operating conditions associated with the Existing Plus No School Alternative scenario. The alternative would increase traffic volumes at freeway ramp junctions. The changes in freeway ramp junction operating conditions do not exceed the standards of significance for impacts to the freeway ramp junctions. The impacts of the alternative would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-14 Freeway Weaving Segments

Table 5.10-24 presents the freeway weaving segment operating conditions associated with the Existing Plus No School Alternative scenario. The alternative would increase traffic volumes at freeway weaving segments. The changes in freeway weaving segment operating conditions do not exceed the standards of significance for impacts to the freeway weaving segments. The impacts of the alternative would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-15 Freeway Ramp Queuing

Table 5.10-25 presents the freeway ramp queuing associated with the Existing Plus No School Alternative scenario. The alternative would increase traffic volumes on the freeway ramps. The changes in freeway ramp queuing do not exceed the available storage space. The impacts of the alternative would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-16 Pedestrian and Bicycle Circulation

The project would not remove any existing or planned pedestrian facility. The project would not remove any existing bicycle facility or any facility that is planned in the City of Sacramento Bikeway Master Plan. The project shall be required to construct all frontage improvements along South Watt Avenue, Jackson Road, and all new roadways in the project vicinity, in conformance with City design standards in coordination with Caltrans and Sacramento County. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards. Therefore, the impact of the project on pedestrian and bicycle circulation is **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure

None required.

Impact 5.10-17 Transit System

Public transit is not currently provided to the alternative site. At the time the alternative application was submitted to the City, no plans for the provision of public transit services were proposed. The alternative would increase demands for public transit facilities, none of which are proposed to be provided to the alternative site. RT is currently working in coordination with Sacramento County to develop a long range plan to provide BRT along S. Watt Avenue and Jackson Road. Therefore, the impact of the alternative on the transit system is **potentially significant**.

Mitigation Measure(s)

5.10-17 *The alternative applicant shall coordinate with Regional Transit to provide transit facilities to serve the alternative area along Jackson Road and / or South Watt Avenue. This mitigation measure would reduce the impact of the alternative to a less than significant level.*

Impact 5.10-18 Parking

Table 5.10-26 presents the parking requirements of the alternative, as identified in the City zoning code. The proposed alternative would not eliminate or adversely affect an existing parking facility or interfere with the implementation of any proposed parking facility. The alternative applicant will provide a parking supply consistent with City standards. The impact would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Construction Impacts (Existing Plus Project, Existing Plus No School Alternative Scenarios)

Impact 5.10-19 Construction

Construction will include disruptions to the transportation network near the site, including the possibility of temporary lane closures, street closures, sidewalk closures, and bikeway closures. Pedestrian, bicycle, and transit access may be disrupted. Heavy vehicles will access the site and may need to be staged for construction. These activities could result in degraded roadway operating conditions. Therefore, the impacts are considered **potentially significant**.

Mitigation Measure(s)

5.10-19 *Prior to beginning of construction, a construction traffic and parking management plan shall be prepared by the applicant to the satisfaction of the City Traffic Engineer and subject to review by all affected agencies. The plan shall ensure that acceptable operating conditions on local roadways and freeway facilities are maintained. At a minimum, the plan shall include:*

- *The number of truck trips, time, and day of street closures.*
- *Time of day of arrival and departure of trucks.*

- *Limitations on the size and type of trucks, provision of a staging area with a limitation on the number of trucks that can be waiting.*
- *Provision of a truck circulation pattern*
- *Provision of driveway access plan so that save vehicular, pedestrian, and bicycle movements are maintained (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas).*
- *Maintain safe and efficient access routes for emergency vehicles.*
- *Manual traffic control when necessary.*
- *Proper advance warning and posted signage concerning street closures.*
- *Provisions for pedestrian safety.*

*A copy of the construction traffic management plan shall be submitted to local emergency response agencies and these agencies shall be notified at least 14 days before the commencement of construction that would partially or fully obstruct roadways. Implementation of the mitigation measure would reduce this impact to a **less than significant** level.*

Cumulative Conditions

Method of Analysis

For the cumulative scenarios, traffic associated with full development of the project and alternative have been added to future year traffic on the roadway system. The future year forecasts were developed through use of SACSIM. The SACSIM database utilized in this analysis includes the land use and transportation networks associated with the City's 2030 General Plan within City boundaries, the land use and transportation networks associated with the County's proposed 2030 General Plan Update within the unincorporated County, and year 2030 land use estimates and networks elsewhere. The regional travel model encompasses the entire Sacramento region, and forecasts peak hour and daily traffic volumes based upon projections of future land use and transportation networks throughout the region.

Many of the transportation network improvements included in the City's 2030 General Plan and the County's proposed 2030 General Plan Update are Tier 1 improvements in SACOG's MTP 2035. In the study area, the following MTP 2035 roadway improvements are included in the analysis:

- Extend 14th Avenue as a four lane facility from Power Inn Road to Jackson Road / Watt Avenue, utilizing the alignment shown on Figure 5.10-1.
- Construct S. Watt Avenue/Elk Grove Florin Road as a six lane facility from Fruitridge Road to Folsom Boulevard.
- Construct HOV lanes in the median of US 50 in the site vicinity.
- Reconstruct the Watt Avenue / US 50 interchange.

The City of Sacramento is participating in a State Route 16 (Jackson Road) Corridor Study, in conjunction with Caltrans, Sacramento County, the City of Rancho Cordova, and Regional Transit. The purpose of the study is to identify necessary transportation improvements for the SR 16 corridor between Florin Perkins Road and Eagles Nest Road. The study will identify ultimate right-of-way requirements to accommodate automobile, bicycle, pedestrian, and transit traffic. The Jackson Road corridor has been identified as a high-frequency transit corridor, which

could include Bus Rapid Transit (BRT) service or other high-capacity, high-frequency services. The study will also consider a planned high capacity intersection at the intersection of Jackson Road and South Watt Avenue.

While the Sacramento County 2030 General Plan Update includes urban interchange at the South Watt Avenue intersection with Folsom Boulevard and a high capacity intersection at Folsom Boulevard and Jackson Road, details of the design of those two facilities are only conceptual at this time. Therefore, at-grade intersections were assumed at these locations. Details of the intersection geometry are presented later in this section.

Scenarios

Three scenarios of future conditions have been analyzed. The cumulative scenario (no project) scenario assumes no development on the project site. The cumulative plus project scenario assumes full development of the project. The Cumulative Plus No School Alternative scenario assumes full development of the alternative.

Figure 5.10-12 illustrates the cumulative trip distribution based upon project traffic during the a.m. and p.m. peak hours.

Traffic Volumes

Cumulative

Figures 5.10-13(a) and (b) illustrate a.m. peak hour and p.m. peak hour traffic volumes associated with the cumulative scenario.

Cumulative Plus Project

Figures 5.10-14(a) through (d) illustrate a.m. peak hour and p.m. peak hour traffic volumes associated with the cumulative plus project scenario.

Cumulative Plus No School Alternative

Figure 5.10-15(a) through (d) illustrate a.m. peak hour and p.m. peak hour traffic volumes associated with the Cumulative Plus No School Alternative scenario.

Intersection Geometry

Cumulative

Figure 5.10-13 illustrates cumulative geometry, including improvements discussed in the “Method of Analysis” section.

Cumulative Plus Project

Figures 5.10-14(a) through (d) illustrate cumulative plus project geometry. This geometry is identical to the cumulative geometry, with the exception of the addition of the site elements.

Figure 5.10-12
Cumulative Scenario Trip Distribution

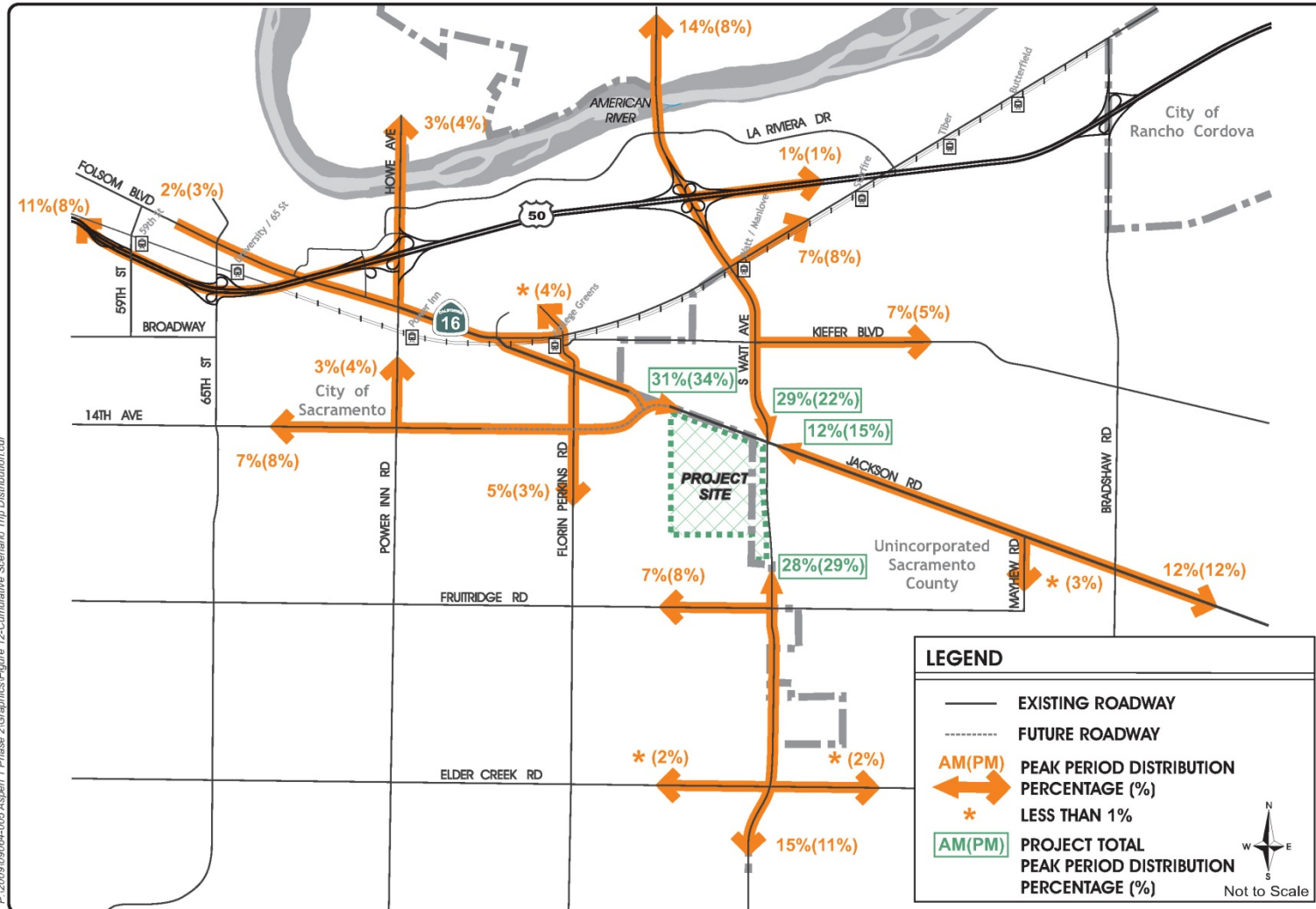


FIGURE 5.10-12
CUMULATIVE SCENARIO TRIP DISTRIBUTION

Figure 5.10-13(a)
Cumulative No Project Conditions – Intersection Volumes and Geometry

1 South Watt Avenue / Folsom Boulevard		2 South Watt Avenue / Klefer Boulevard		3 South Watt Avenue / Jackson Road	
617 (486) 2236 (2573) 933 (1035)	787 (902) 596 (711) 224 (437)	214 (47) 2181 (3006) 447 (572)	398 (661) 548 (145) 185 (244)	105 (102) 1041 (1986) 1248 (1309)	1401 (1230) 1600 (1158) 80 (24)
377 (448) 642 (940) 237 (230)	99 (141) 2634 (2739) 386 (340)	86 (178) 214 (634) 26 (92)	117 (6) 3008 (2481) 231 (228)	56 (86) 1009 (1552) 132 (390)	345 (228) 1922 (1417) 24 (72)
4 South Watt Avenue / Fruitridge Road		5 South Watt Avenue / Elder Creek Road		6 Howe Ave / US 50 WB - College Town	
217 (36) 1039 (1942) 25 (370)	289 (24) 1178 (828) 91 (164)	272 (205) 725 (1903) 262 (625)	562 (333) 1244 (1007) 201 (393)	395 (567) 1727 (2539)	1086 (1117) 666 (433) 292 (386)
93 (297) 614 (1232) 122 (418)	421 (255) 1915 (1291) 125 (92)	161 (192) 772 (1258) 72 (306)	240 (126) 1977 (1127) 420 (170)	192 (307) 210 (499)	1612 (2099) 883 (593)
7 Howe Avenue / US 50 EB Ramps		8 Howe Ave - Power Inn Rd / Folsom Blvd		9 Power Inn Road / 14th Avenue	
649 (1117) 1538 (2217)		226 (128) 1605 (1760) 889 (1464)	873 (899) 973 (913) 136 (192)	191 (244) 1086 (2039) 48 (443)	524 (78) 525 (502) 71 (76)
615 (787) 1199 (1125)	1941 (1896) 410 (588)	176 (218) 483 (599) 67 (405)	855 (394) 1306 (1384) 162 (120)	284 (204) 428 (514) 160 (169)	175 (270) 2038 (1279) 40 (97)
10 Notre Dame - Jackson Rd / Folsom Bl		11 Florin Perkins Road / Jackson Road		12 Bradshaw Road / Jackson Road	
112 (96) 13 (16) 15 (17)	51 (25) 794 (671) 4 (4)	7 (6) 772 (675) 127 (4)	131 (188) 1136 (854) 121 (10)	77 (101) 1162 (2902) 235 (174)	190 (288) 1774 (1519) 526 (637)
16 (68) 277 (715) 907 (1448)	1010 (811) 6 (10) 0 (3)	10 (11) 868 (1247) 105 (148)	74 (5) 1003 (1048) 1 (95)	130 (29) 1473 (1821) 235 (220)	140 (274) 2939 (1507) 505 (608)

Notes: AM (PM) Peak Hour

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FIGURE 5.10-13a
CUMULATIVE
NO PROJECT CONDITIONS
INTERSECTION VOLUMES, GEOMETRY

Figure 5.10-13(b)
Cumulative No Project Conditions – Intersection Volumes and Geometry

13	Jullard - Florin Perkins Rd / Folsom Bl	14	Florin Perkins Road / Kiefer Boulevard	15	S. Watt Avenue / US 50 WB Ramps
 34 (35) ↘ 236 (279) ↗ 64 (146)	 79 (84) ↑ ↓ 378 (484) ↘ 428 (509)	 ← 561 (433) ↗ 115 (446)	 ↘ 310 (29) ↗ 264 (140)	 ↓ 4339 (4298)	 ↗ 1225 (1858) ↘ 434 (333)
23 (45) ↘ 214 (701) ↓ ↓ 56 (58) ↘	 ↘ 556 (241) ↗ 281 (286) ↘ 422 (505)		 ↑ ↓ 876 (871) 129 (262)		 ↓ ↓ ↓ 3182 (3654)
16	S. Watt Avenue / US 50 EB Ramps	17	Jackson Road / 14th Avenue	18	Florin Perkins Road / 14th Avenue
 ↓ 3013 (3271)	 ↓ ↓ ↓ 3344 (3592)	 ↘ 402 (256) ↗ 875 (1393)	 ↘ 1403 (1025) ↓ ↓ 630 (462)	 376 (262) ↘ 665 (605) ↗ 37 (139)	 152 (45) ↑ ↓ 534 (428) ↘ 131 (183)
598 (741) ↘ 774 (824) ↘	 ↓ ↓ ↓ 3344 (3592)	 223 (444) ↘ 322 (635) ↓ ↓	 181 (416) ↘ 304 (598) ↘ 39 (98)	 147 (48) ↘ 789 (804) ↑ ↓ 178 (133)	
<p>Notes: AM (PM) Peak Hour</p>					
 TRANSPORTATION SOLUTIONS		<p>FIGURE 5.10-13b CUMULATIVE NO PROJECT CONDITIONS INTERSECTION VOLUMES, GEOMETRY</p>			

Figure 5.10-14(a)
Cumulative Plus Project Conditions – Intersection Volumes and Geometry

1 South Watt Avenue / Folsom Boulevard		2 South Watt Avenue / Kiefer Boulevard		3 South Watt Avenue / Jackson Road	
620 (486) 2210 (2557) 949 (1043)	783 (903) 604 (730) 240 (490)	206 (53) 2182 (3019) 439 (576)	374 (650) 550 (166) 214 (278)	113 (143) 1092 (2010) 1234 (1300)	1397 (1205) 1520 (1116) 130 (119)
395 (452) 650 (911) 237 (229)	94 (158) 2627 (2744) 428 (383)	84 (181) 210 (631) 26 (94)	83 (7) 3051 (2552) 249 (249)	108 (187) 1016 (1556) 172 (264)	343 (286) 1915 (1447) 32 (91)
4 South Watt Avenue / Fruitridge Road		5 South Watt Avenue / Elder Creek Road		6 Howe Ave / US 50 WB - College Town	
244 (25) 1048 (1272) 61 (453)	270 (65) 1220 (820) 85 (159)	278 (212) 743 (1942) 259 (594)	538 (343) 1273 (1031) 203 (389)	410 (572) 1693 (2536)	1102 (1134) 664 (423) 303 (370)
121 (362) 639 (1219) 112 (400)	392 (228) 1970 (1360) 109 (74)	171 (211) 797 (1265) 70 (292)	235 (136) 2014 (1136) 384 (183)	193 (304) 212 (507)	1567 (2099) 894 (622)
7 Howe Avenue / US 50 EB Ramps		8 Howe Ave - Power Inn Rd / Folsom Blvd		9 Power Inn Road / 14th Avenue	
621 (1122) 1518 (2218)		223 (126) 1617 (1746) 875 (1549)	785 (909) 1019 (926) 135 (187)	193 (232) 1087 (2025) 53 (470)	552 (131) 525 (518) 76 (81)
635 (795) 1214 (1194)	1925 (1912) 413 (581)	178 (211) 501 (548) 52 (431)	800 (402) 1378 (1390) 162 (113)	269 (214) 424 (525) 170 (180)	172 (289) 2051 (1267) 40 (101)
10 Notre Dame - Jackson Rd / Folsom Bl		11 Florin Perkins Road / Jackson Road		12 Bradshaw Road / Jackson Road	
96 (96) 12 (16) 15 (16)	51 (24) 779 (679) 4 (4)	7 (6) 777 (745) 133 (20)	134 (208) 1163 (886) 121 (7)	84 (107) 1159 (2933) 228 (182)	208 (320) 1745 (1526) 516 (604)
11 (64) 274 (726) 921 (1483)	999 (838) 6 (11) 0 (3)	10 (11) 886 (1323) 100 (108)	56 (1) 992 (1048) 0 (95)	130 (29) 1490 (1830) 228 (228)	117 (281) 2950 (1499) 533 (622)

Notes: AM (PM) Peak Hour

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FIGURE 5.10-14a
CUMULATIVE
PLUS PROJECT CONDITIONS
INTERSECTION VOLUMES, GEOMETRY

Figure 5.10-14(b)
Cumulative Plus Project Conditions – Intersection Volumes and Geometry

13 Jullard - Florin Perkins Rd / Folsom Bl		14 Florin Perkins Road / Kiefer Boulevard		15 S. Watt Avenue / US 50 WB Ramps	
34 (35) ↖ 239 (290) ↗ 68 (147)	73 (78) ↑ 370 (488) ↘ 443 (553)	↖ 580 (492) ↗ 111 (446)	↖ 301 (31) ↘ 257 (167)	↖ 4340 (4337)	↖ 1208 (1886) ↘ 434 (334)
23 (44) ↘ 218 (700) ↓ 52 (62) ↗	54S (247) ↘ 266S (293) ↘ 43S (500) ↘		872 (877) ↑ 126 (276) ↓		3212 (3638) ↓
16 S. Watt Avenue / US 50 EB Ramps		17 Jackson Road / 14th Avenue		18 Florin Perkins Road / 14th Avenue	
↖ 3031 (3305) ↓ ↓ ↓		↖ 392 (246) ↗ 902 (1550)	↖ 1459 (1091) ↓ 713 (530)	↖ 368 (278) ↖ 677 (597) ↗ 36 (160)	↖ 140 (44) ↑ 590 (466) ↘ 144 (188)
601 (741) ↘ 749 (782) ↘	↑ ↓ ↓ 3308 (3571) ↓	217 (424) ↘ 362 (769) ↓		170 (404) ↘ 317 (657) ↓ 35 (107)	136 (56) ↘ 760 (609) ↓ 187 (149) ↓
19 Rock Creek Parkway / Jackson Road		20 Rock Creek Parkway / Street 7		21 Rock Creek Parkway / Street 16	
	↖ 1949 (1484) ↓ 5 (24)	7 (90) ↖ 35 (164) ↗ 10 (222)	↖ 7 (16) ↘ 16 (17)		95 (43) ↘ 22 (29)
1217 (1933) ↘ 45 (314)	220 (112) ↘ 17 (24) ↘	38 (23) ↘ 2 (1)		26 (14) 22 (231) ↘	1 (4) 119 (109) ↘ 10 (14)
22 Rock Creek Parkway / Street 13		23 Rock Creek Parkway / Street 18		24 Rock Creek Parkway / Street 11	
3 (12) ↖ 50 (170) 0 (1)	↖ 1 (3) 3 (1)		0 (0) ↖ 3 (1)	32 (64) ↖ 22 (91) 0 (17)	↖ 25 (40) 0 (0)
11 (6) ↘ 2 (2)		11 (6) 0 (1) ↘	1 (9) 119 (121) ↘ 3 (2)	22 (57) ↘ 12 (71)	

Notes: AM (PM) Peak Hour

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FIGURE 5.10-14b
CUMULATIVE PLUS PROJECT CONDITIONS INTERSECTION VOLUMES, GEOMETRY

Figure 5.10-14(c)
Cumulative Plus Project Conditions – Intersection Volumes and Geometry

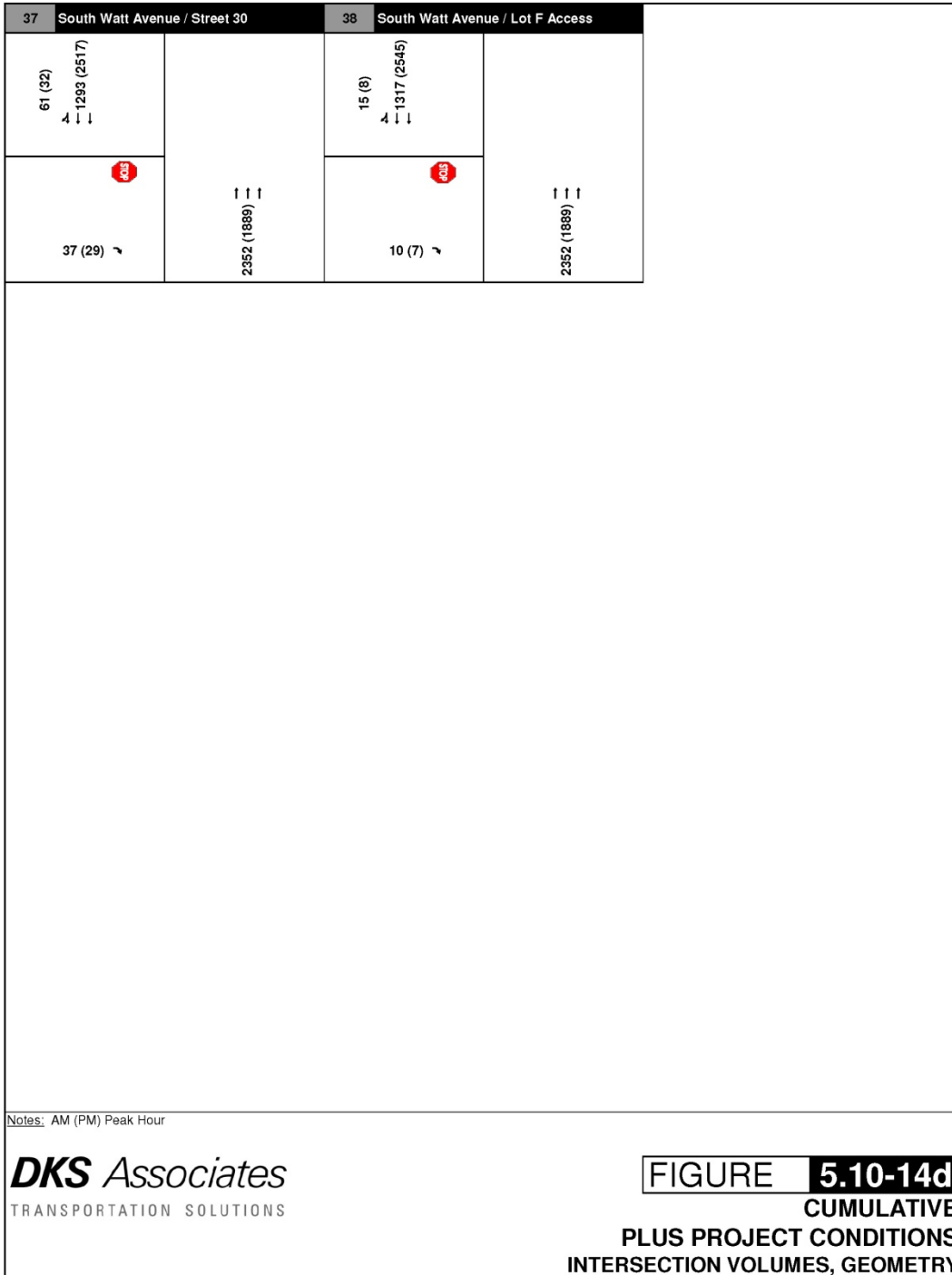
25 Rock Creek Parkway / Street 20		26 Rock Creek Pkwy / Aspen Prom SW		27 Rock Creek Pkwy / Aspen Prom NE	
	 0 (0) 0 (0)	14 (63) 15 (101) 5 (8)	 30 (71) 7 (5)		 2 (10) 8 (6)
22 (56) 0 (0)	 24 (39) 86 (61) 0 (0)	37 (39) 43 (58)		33 (35) 9 (13)	 29 (70) 75 (56) 7 (9)
28 Street 30 / Rock Creek Parkway		29 Street 22 / Rock Creek Parkway		30 Street 24 / Rock Creek Parkway EB	
56 (45) 11 (40)		5 (3) 12 (40)	 23 (30) 67 (116) 56 (45)		 21 (13)
 1 (6) 57 (129) 8 (29)	 40 (16) 28 (16)		 39 (16) 1 (6)		1 (0) 95 (186)
31 Street 24 / Rock Creek Parkway WB		32 Lot B / Lot A Access Rd / Jackson Rd		33 Lot A Access / Jackson Road	
1 (0) 21 (13)	8 (24) 144 (190)		 1944 (1432) 15 (93)		 1960 (1546)
	 1 (0)	1223 (1889) 11 (59)	 9 (68) 25 (35)	1246 (1930) 1 (2)	 48 (62)
34 South Watt Avenue / Lot A Access		35 S Watt Ave / Lot A / Lot D Access Road		36 South Watt Avenue / Rock Creek Pkwy	
60 (156) 1334 (2237)		42 (15) 1313 (2344)		26 (62) 1301 (2436)	
 20 (100)	 2289 (1823)	 14 (126)	 2289 (1823)	 63 (86) 52 (93)	 122 (123) 2226 (1737)

Notes: AM (PM) Peak Hour

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FIGURE 5.10-14c
CUMULATIVE PLUS PROJECT CONDITIONS INTERSECTION VOLUMES, GEOMETRY

Figure 5.10-14(d)
Cumulative Plus Project Conditions – Intersection Volumes and Geometry



Cumulative Plus No School Alternative

Figures 5.10-15(a) through (d) illustrate Cumulative Plus No School Alternative geometry. This geometry is identical to the cumulative plus project geometry.

Cumulative Analysis

Intersection Operations

Table 5.10-27 summarizes a.m. and p.m. peak hour intersection operations for cumulative scenarios.

Segment Operations

Table 5.10-28 summarizes daily segment analysis for cumulative scenarios.

Freeway Operations

Table 5.10-29 summarizes a.m. and p.m. peak hour freeway mainline volumes, including HOV lane volumes.

Table 5.10-30 summarizes a.m. and p.m. weekday peak hour freeway mainline operating conditions.

Table 5.10-31 summarizes a.m. and p.m. weekday peak hour freeway ramp junction operating conditions.

Table 5.10-32 summarizes a.m. and p.m. weekday peak hour freeway weaving segment operating conditions.

Table 5.10-33 summarizes a.m. and p.m. peak hour freeway exit ramp queuing.

Cumulative Impacts and Mitigation Measures (Cumulative Plus Project)

Impact 5.10-20 Intersections

The project would increase traffic volumes at study area intersections and would cause significant impacts under the cumulative with project scenario at the following intersections:

- (a) South Watt Avenue and Jackson Road - Traffic from the project would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.
- (b) Howe Avenue / Power Inn Road and Folsom Boulevard - Traffic from the project would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.
- (c) Power Inn Road and 14th Avenue – Traffic from the project would result in LOS E conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.

Figure 5.10-15(a)
Cumulative Plus No School Alternative Conditions – Intersection Volumes and Geometry

1 South Watt Avenue / Folsom Boulevard		2 South Watt Avenue / Kleifer Boulevard		3 South Watt Avenue / Jackson Road	
614 (487) 2211 (2575) 939 (1036)	783 (901) 589 (734) 240 (487)	208 (62) 2179 (3013) 438 (599)	384 (653) 553 (162) 210 (286)	117 (145) 1080 (1930) 1234 (1378)	1382 (1195) 1570 (1122) 135 (117)
396 (465) 650 (927) 235 (227)	95 (160) 2622 (2731) 428 (388)	82 (181) 211 (623) 26 (91)	76 (7) 3042 (2539) 246 (247)	109 (189) 1019 (1465) 157 (339)	331 (285) 1909 (1436) 32 (91)
4 South Watt Avenue / Fruitridge Road		5 South Watt Avenue / Elder Creek Road		6 Howe Ave / US 50 WB - College Town	
257 (25) 1049 (1951) 53 (456)	286 (63) 1168 (824) 90 (146)	283 (209) 748 (1948) 259 (592)	561 (340) 1236 (1038) 205 (382)	423 (566) 1686 (2538)	1098 (1135) 671 (428) 321 (375)
109 (353) 639 (1213) 116 (432)	427 (222) 1925 (1349) 112 (79)	169 (210) 797 (1257) 70 (295)	243 (136) 1992 (1131) 393 (191)	199 (308) 218 (506)	1576 (2101) 921 (625)
7 Howe Avenue / US 50 EB Ramps		8 Howe Ave - Power Inn Rd / Folsom Blvd		9 Power Inn Road / 14th Avenue	
624 (1112) 1531 (2233)		225 (127) 1667 (1902) 871 (1467)	804 (924) 1040 (915) 135 (187)	196 (237) 1038 (2043) 82 (458)	550 (149) 535 (512) 84 (85)
628 (800) 1249 (1153)	1960 (1911) 413 (578)	178 (208) 525 (597) 67 (396)	765 (415) 1394 (1372) 162 (117)	277 (212) 394 (525) 198 (194)	170 (300) 2026 (1246) 43 (107)
10 Notre Dame - Jackson Rd / Folsom Bl		11 Florin Perkins Road / Jackson Road		12 Bradshaw Road / Jackson Road	
92 (96) 12 (16) 15 (17)	51 (25) 784 (675) 4 (4)	7 (6) 751 (747) 132 (27)	144 (201) 1197 (893) 121 (7)	85 (114) 1147 (2880) 229 (229)	202 (338) 1774 (1523) 514 (599)
11 (65) 274 (732) 940 (1441)	1037 (846) 6 (10) 0 (3)	10 (11) 880 (1296) 125 (93)	58 (2) 994 (1051) 0 (95)	129 (30) 1486 (1763) 236 (290)	108 (282) 2952 (1500) 537 (622)

Notes: AM (PM) Peak Hour

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FIGURE 5.10-15a
CUMULATIVE
PLUS NO SCHOOL ALTERNATIVE CONDITIONS
INTERSECTION VOLUMES, GEOMETRY

Figure 5.10-15(b)
Cumulative Plus No School Alternative Conditions – Intersection Volumes and Geometry

13	Jullard - Florin Perkins Rd / Folsom Bl	14	Florin Perkins Road / Kiefer Boulevard	15	S. Watt Avenue / US 50 WB Ramps
34 (35) ↖ 232 (285) ↗ 68 (147)	72 (78) ↑ 370 (488) ↘ 425 (568)	↖ 556 (506) ↗ 110 (445)	↖ 300 (30) ↘ 255 (162)	↖ 4322 (4335)	↖ 1218 (1881) ↘ 437 (334)
23 (44) ↘ 218 (703) ↓ ↓ 52 (65) ↘	550 (245) ↘ 270 (284) ↘ 438 (515) ↘		↑ 883 (882) ↓ 126 (267)		↑ ↑ ↑ 3179 (3648)
16	S. Watt Avenue / US 50 EB Ramps	17	Jackson Road / 14th Avenue	18	Florin Perkins Road / 14th Avenue
↖ 3008 (3285) ↓ ↓ ↓		↖ 396 (241) ↗ 896 (1530)	↖ 1511 (1093) ↓ 713 (531)	↖ 369 (282) ↘ 675 (584) ↗ 36 (159)	↖ 140 (44) ↑ 595 (467) ↘ 145 (185)
600 (744) ↘ 756 (813) ↘	↑ ↑ ↑ 3306 (3581)	215 (416) ↘ 359 (768) ↓ ↓		173 (404) ↘ 318 (649) ↘ 40 (121)	143 (58) ↘ 762 (814) ↘ 184 (151)
19	Rock Creek Parkway / Jackson Road	20	Rock Creek Parkway / Street 7	21	Rock Creek Parkway / Street 16
	↑ ↑ ↑ 1990 (1492) 4 (24)	7 (31) ↘ 35 (156) 11 (216)	↘ 7 (15) 16 (17)		108 (44) ↘ 21 (30)
1207 (1924) ↘ 35 (302)	210 (108) ↘ 15 (24) ↘	39 (24) ↘ 1 (1)		27 (14) 24 (226) ↘	1 (3) 117 (103) ↘ 10 (15)
22	Rock Creek Parkway / Street 13	23	Rock Creek Parkway / Street 18	24	Rock Creek Parkway / Street 11
3 (12) ↘ 49 (162) 0 (1)	1 (3) 1 (1)		0 (0) 1 (1)	31 (65) ↘ 21 (81) 0 (177)	23 (39) 0 (0)
11 (6) ↘ 1 (2)		11 (6) 0 (1) ↘	1 (3) 117 (115) ↘ 2 (2)	23 (57) ↘ 10 (70)	

Notes: AM (PM) Peak Hour

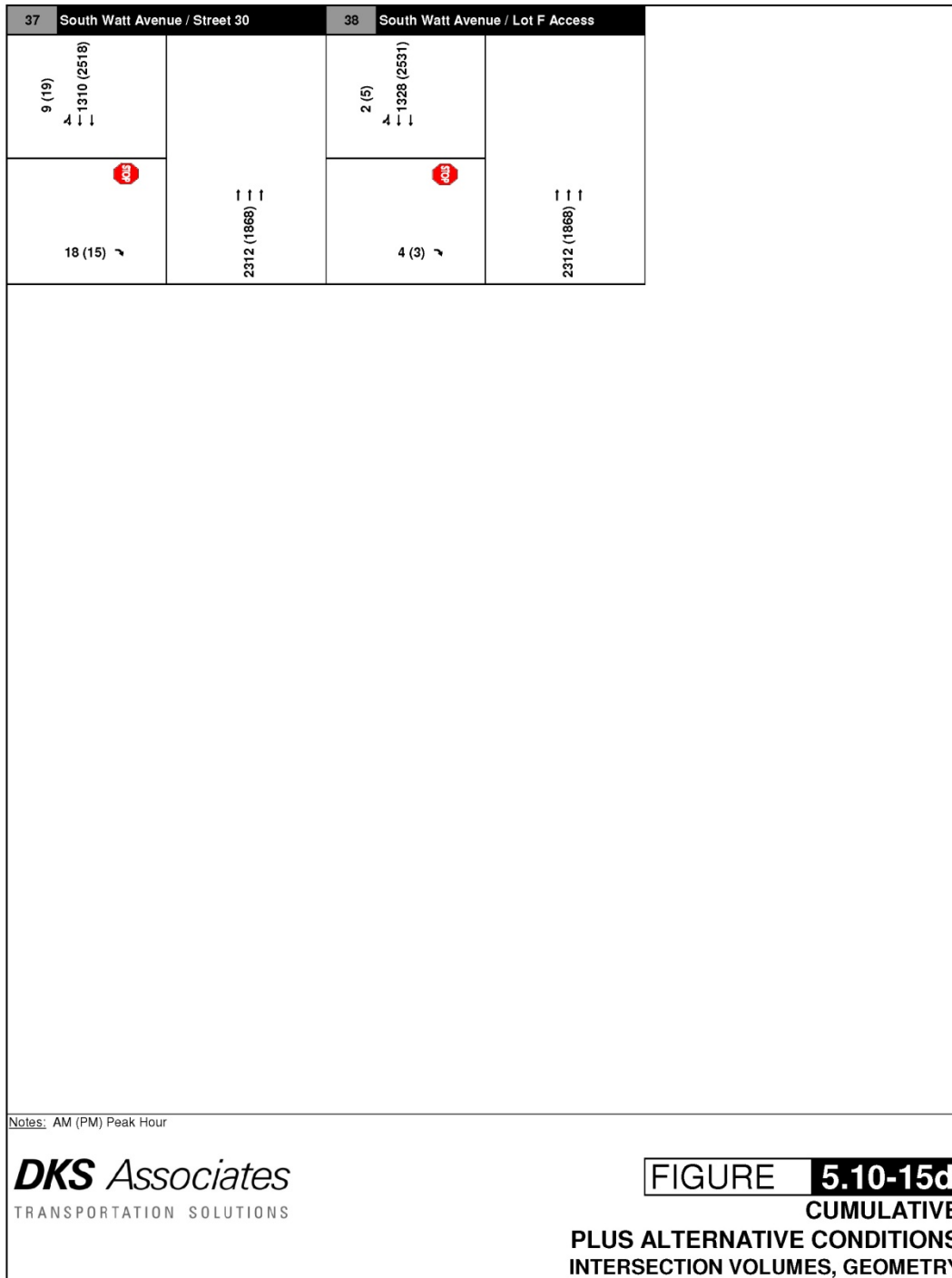
DKS Associates
 TRANSPORTATION SOLUTIONS

FIGURE 5.10-15b
CUMULATIVE PLUS NO SCHOOL ALTERNATIVE CONDITIONS INTERSECTION VOLUMES, GEOMETRY

Figure 5.10-15(c)
Cumulative Plus No School Alternative Conditions – Intersection Volumes and Geometry

25 Rock Creek Parkway / Street 20		26 Rock Creek Pkwy / Aspen Prom SW		27 Rock Creek Pkwy / Aspen Prom NE	
		14 (53) 11 (90) 5 (8)		30 (71) 6 (5)	2 (10) 7 (6)
22 (56) 0 (0)	STOP 22 (98) 82 (64) 0 (0)	STOP 37 (39) 43 (59)	STOP	STOP 34 (35) 8 (12)	STOP 30 (70) 68 (48) 6 (8)
28 Street 30 / Rock Creek Parkway		29 Street 22 / Rock Creek Parkway		30 Street 24 / Rock Creek Parkway EB	
8 (27) 12 (41)		5 (3) 12 (41)	23 (30) 79 (115) 8 (27)		21 (14)
1 (6) 59 (130) 1 (18)	STOP 19 (8) 14 (7)	STOP 19 (8) 1 (6)			84 (178)
31 Street 24 / Rock Creek Parkway WB		32 Lot B / Lot A Access Rd / Jackson Rd		33 Lot A Access / Jackson Road	
21 (14)	8 (24) 110 (172)		1984 (1439) 13 (92)		2002 (1553)
	STOP	1212 (1876) 9 (62)	11 (89) 23 (95)	1237 (1916) 1 (2)	STOP 44 (62)
34 South Watt Avenue / Lot A Access		35 S Watt Ave / Lot A / Lot D Access Road		36 South Watt Avenue / Rock Creek Pkwy	
59 (154) 1314 (2232)		55 (15) 1277 (2337)		26 (62) 1264 (2423)	
STOP 16 (98)	1111 2271 (1812)	STOP 13 (121)	1111 2271 (1812)	51 (78) 48 (94)	STOP 66 (108) 2220 (1734)
DKS Associates TRANSPORTATION SOLUTIONS		FIGURE 5.10-15c CUMULATIVE PLUS NO SCHOOL ALTERNATIVE CONDITIONS INTERSECTION VOLUMES, GEOMETRY			

Figure 5.10-15(d)
Cumulative Plus No School Alternative Conditions – Intersection Volumes and Geometry



**Table 5.10-27
 Cumulative Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Cumulative		Cumulative Plus Project		Cumulative Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
1. South Watt Avenue and Folsom Blvd.	E	Signal	A.M.	F	96.5	F	97.8	F	97.2
			P.M.	F	140.5	F	143.5	F	143.5
2. South Watt Avenue and Kiefer Blvd.	E	Signal	A.M.	F	1.163 VC	F	1.157 VC	F	1.160 VC
			P.M.	F	1.292 VC	F	1.308 VC	F	1.314 VC
3. South Watt Avenue and Jackson Road	D	Signal	A.M.	F	228.2	F	229.4	F	226.5
			P.M.	F	169.8	F	182.9	F	181.7
4. South Watt Avenue and Fruitridge Road	D	Signal	A.M.	D	51.7	D	54.5	D	53.3
			P.M.	E	67.9	E	70.1	E	68.5
5. South Watt Avenue and Elder Creek Road	D	Signal	A.M.	E	61.8	E	64.3	E	62.3
			P.M.	E	65.8	E	66.4	E	65.9
6. Howe Avenue and US 50 Westbound Ramps / College Town Drive	E	Signal	A.M.	D	35.5	D	35.6	D	35.9
			P.M.	D	52.4	D	53.9	D	54.0

**Table 5.10-27
 Cumulative Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Cumulative		Cumulative Plus Project		Cumulative Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
7. Howe Ave. and US 50 Eastbound Ramps	E	Signal	A.M.	B	18.0	B	18.2	B	19.3
			P.M.	B	19.6	C	21.6	C	20.5
8. Howe Avenue / Power Inn Road and Folsom Boulevard	E	Signal	A.M.	D	51.0	D	52.6	D	53.4
			P.M.	F	82.9	F	88.7	F	81.2
9. Power Inn Road and 14th Avenue	D	Signal	A.M.	D	47.2	D	46.6	D	50.2
			P.M.	E	65.2	E	72.0	E	70.7
10. Notre Dame Drive / Jackson Road and Folsom Boulevard	E	Signal	A.M.	E	68.5	E	66.9	E	72.8
			P.M.	F	131.8	F	141.4	F	133.7
11. Florin Perkins Road and Jackson Road	E	Signal	A.M.	D	49.8	D	49.6	D	49.7
			P.M.	D	37.6	D	38.9	D	39.3
12. Bradshaw Road and Jackson Road	E	Signal	A.M.	F	1.234 VC	F	1.235 VC	F	1.234 VC
			P.M.	F	1.353 VC	F	1.353 VC	F	1.325 VC

**Table 5.10-27
 Cumulative Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Cumulative		Cumulative Plus Project		Cumulative Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
13. Julliard Drive / Florin Perkins Road and Folsom Boulevard	E	Signal	A.M.	D	37.4	D	38.4	D	37.7
			P.M.	F	82.2	F	88.1	F	92.7
14. Florin Perkins Road and Kiefer Blvd.	E	2-Way Stop	A.M.	A	9.6	A	8.8	A	8.9
			P.M.	E	36.5	F	57.7	F	53.1
15. South Watt Avenue and US 50 Westbound Ramps	D	Signal	A.M.	E	78.1	E	76.8	E	76.7
			P.M.	F	144.3	F	148.3	F	148.0
16. South Watt Avenue and US 50 Eastbound Ramps	D	Signal	A.M.	D	36.3	C	34.6	C	34.9
			P.M.	D	47.1	D	43.6	D	46.1
17. Jackson Road and 14th Avenue	D	Signal	A.M.	E	61.7	E	67.9	E	75.4
			P.M.	F	99.3	F	122.8	F	118.8
18. Florin Perkins Road and 14th Avenue	D	Signal	A.M.	D	52.1	D	52.1	D	52.5
			P.M.	E	58.1	E	59.7	E	59.7
19. Rock Creek Parkway and Jackson Road	D	Signal	A.M.			A	9.6	A	9.2
			P.M.			A	7.5	A	7.2

**Table 5.10-27
 Cumulative Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Cumulative		Cumulative Plus Project		Cumulative Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
20. Rock Creek Parkway and Street 7	D	All-Way Stop	A.M.			A	9.6	A	9.2
			P.M.			A	7.5	A	7.2
21. Rock Creek Parkway and Street 16	D	All-Way Stop	A.M.			A	7.2	A	7.2
			P.M.			B	10.4	B	10.2
22. Rock Creek Parkway and Street 13	D	All-Way Stop	A.M.			A	7.6	A	7.6
			P.M.			A	8.6	A	8.5
23. Rock Creek Parkway and Street 18	D	All-Way Stop	A.M.			A	7.1	A	7.1
			P.M.			A	7.8	A	7.7
24. Rock Creek Parkway and Street 11	D	All-Way Stop	A.M.			A	7.5	A	7.5
			P.M.			A	7.5	A	7.5
25. Rock Creek Parkway and Street 20	D	All-Way Stop	A.M.			A	7.0	A	7.0
			P.M.			A	7.8	A	7.7

**Table 5.10-27
 Cumulative Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Cumulative		Cumulative Plus Project		Cumulative Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
26. Rock Creek Parkway and Aspen Promenade SW	D	All-Way Stop	A.M.			A	7.5	A	7.5
			P.M.			A	7.6	A	7.6
27. Rock Creek Parkway and Aspen Promenade NE	D	All-Way Stop	A.M.			A	7.5	A	7.5
			P.M.			A	7.7	A	7.7
28. Street 30 and Rock Creek Parkway	D	All-Way Stop	A.M.			A	7.4	A	7.2
			P.M.			A	7.8	A	7.8
29. Street 22 and Rock Creek Parkway	D	All-Way Stop	A.M.			A	7.7	A	7.3
			P.M.			A	7.9	A	7.8
30. Street 24 and Rock Creek Parkway Eastbound	D	2-Way Stop	A.M.			A	1.7	A	1.8
			P.M.			A	0.6	A	0.7
31. Street 24 and Rock Creek Parkway Westbound	D	2-Way Stop	A.M.			A	1.3	A	1.5
			P.M.			A	0.6	A	0.7
32. Lot B / Lot A Access Road and Jackson Road	D	Signal	A.M.			A	2.8	A	2.8
			P.M.			A	8.2	A	8.1
33. Lot A Access and Jackson Road	D	2-Way Stop	A.M.			A	0.2	A	0.2
			P.M.			A	0.4	A	0.4

**Table 5.10-27
 Cumulative Scenario Intersection Operating Conditions**

Intersection	LOS Criteria	Traffic Control	Peak Hour	Cumulative		Cumulative Plus Project		Cumulative Plus No School Alternative	
				LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
34. South Watt Avenue and Lot A Access	D	2-Way Stop	A.M.			A	0.1	A	0.1
			P.M.			A	0.5	A	0.5
35. South Watt Avenue and Lot A / Lot D Access Road	D	2-Way Stop	A.M.			A	0.0	A	0.0
			P.M.			A	0.6	A	0.6
36. South Watt Avenue and Rock Creek Parkway	D	Signal	A.M.			A	6.3	A	4.6
			P.M.			A	8.4	A	7.9
37. South Watt Avenue and Street 30	D	2-Way Stop	A.M.			A	0.1	A	0.1
			P.M.			A	0.1	A	0.1
38. South Watt Avenue and Lot F Access	D	2-Way Stop	A.M.			A	0.0	A	0.0
			P.M.			A	0.0	A	0.0
Note: VC = Volume-to-Capacity Ratio for Critical Lane Methodology 1. Level of Service 2. Seconds of Delay Source: DKS Associates, 2011.									

**Table 5.10-28
 Cumulative Scenario Roadway Segment Operating Conditions**

Roadway	Segment	Lanes	LOS Criteria	Cumulative			Cumulative Plus Project			Cumulative Plus No School Alternative		
				Volume	V/C ¹	LOS	Volume	V/C ¹	LOS	Volume	V/C ¹	LOS
South Watt Avenue	A. Kiefer Boulevard to Jackson Road	6	E	82,104	1.52	F	84,622	1.57	F	84,228	1.56	F
	B. Jackson Road to Fruitridge Road	6	D	48,311	0.89	D	51,515	0.95	E	51,292	0.95	E
	C. Fruitridge Road to Elder Creek Road	6	D	55,698	1.03	F	56,345	1.04	F	56,349	1.04	F
Jackson Road	D. Folsom Blvd. to Florin Perkins Road	4	E	32,604	0.91	E	32,884	0.91	E	32,901	0.91	E
	E. Florin Perkins Road to 14th Ave.	4	E	35,587	0.99	E	37,246	1.03	F	37,284	1.04	F
	F. 14th Avenue to South Watt Ave.	4	D	46,953	1.30	F	50,325	1.40	F	50,405	1.40	F
	G. South Watt Ave. to Bradshaw Road	6	E	77,904	1.44	F	77,922	1.44	F	77,652	1.44	F
14th Avenue	H. Power Inn Rd. to Florin Perkins Rd.	4	D	21,879	0.61	B	22,948	0.64	B	22,890	0.64	B
	I. Florin Perkins Rd. to Jackson Rd.	4	D	21,691	0.60	B	23,231	0.65	B	23,203	0.64	B

1. Based on moderate access control.
 2. Analysis based on 2 southbound lanes.

Source: DKS Associates, 2011.

**Table 5.10-29
 Cumulative Scenario Freeway Mainline Peak Hour Volumes**

Direction	Segment	Lanes			Cumulative			Cumulative Plus Project			Cumulative Plus No School Alternative		
		Through	Auxiliary	HOV	Mixed-Flow	HOV	Total	Mixed-Flow	HOV	Total	Mixed-Flow	HOV	Total
A.M. Peak Hour													
Eastbound US 50	65th Street to Howe Ave.	4	1	1	9,484	758	10,242	9,530	767	10,297	9,503	764	10,297
	Howe Avenue to Watt Ave.	4	0	1	8,240	857	9,097	8,224	867	9,091	8,222	864	9,091
	Watt Ave. to Bradshaw Rd.	4	0	1	9,081	817	9,898	9,115	828	9,943	9,112	825	9,943
Westbound US 50	Bradshaw Rd. to Watt Ave.	4	0	1	7,810	1,313	9,123	7,834	1,298	9,132	7,833	1,293	9,132
	Watt Ave. to Howe Avenue	4	1	1	8,797	1,290	10,087	8,758	1,272	10,030	8,781	1,267	10,030
	Howe Ave. to 65th Street	4	1	1	9,183	992	10,175	9,193	974	10,167	9,194	970	10,167
P.M. Peak Hour													
Eastbound US 50	65th Street to Howe Ave.	4	1	1	9,089	1,381	10,470	9,089	1,401	10,490	9,096	1,388	10,484
	Howe Avenue to Watt Ave.	4	0	1	8,184	1,652	9,836	8,111	1,673	9,784	8,130	1,657	9,787
	Watt Ave. to Bradshaw Rd.	4	0	1	8,475	1,625	10,100	8,481	1,641	10,122	8,470	1,642	10,112
Westbound US 50	Bradshaw Rd. to Watt Ave.	4	0	1	8,327	1,386	9,713	8,337	1,413	9,750	8,349	1,411	9,760
	Watt Ave. to Howe Avenue	4	1	1	8,218	1,362	9,580	8,210	1,386	9,596	8,245	1,386	9,631
	Howe Avenue to 65th St.	4	1	1	8,634	1,141	9,775	8,622	1,155	9,777	8,628	1,154	9,782

Source: DKS Associates, 2011.

**Table 5.10-30
 Cumulative Scenario Freeway Mainline Peak Hour Operating Conditions**

Direction	Segment	Lanes		Cumulative			Cumulative Plus Project			Cumulative Plus No School Alternative		
		Through	Auxiliary	Volume ¹	Density	LOS	Volume	Density	LOS	Volume	Density	LOS
A.M. Peak Hour												
Eastbound US 50	65th Street to Howe Avenue	4	1	9,484	55.30	F	9,530	56.31	F	9,503	55.72	F
	Howe Avenue to Watt Ave.	4	0	8,240	44.75	E	8,224	44.52	E	8,222	44.50	E
	Watt Ave. to Bradshaw Road	4	0	9,081	62.02	F	9,115	63.03	F	9,112	62.96	F
Westbound US 50	Bradshaw Road to Watt Ave.	4	0	7,810	39.41	E	7,834	39.67	E	7,833	39.66	E
	Watt Ave. to Howe Avenue	4	1	8,797	39.33	E	8,758	38.96	E	8,781	39.18	E
	Howe Avenue to 65th Street	4	1	9,183	46.66	F	9,193	46.81	F	9,194	46.83	F
P.M. Peak Hour												
Eastbound US 50	65th Street to Howe Avenue	4	1	9,089	48.10	F	9,089	48.09	F	9,096	48.20	F
	Howe Avenue to Watt Ave.	4	0	8,184	43.96	E	8,111	42.99	E	8,130	43.24	E
	Watt Ave. to Bradshaw Road	4	0	8,475	48.42	F	8,481	48.53	F	8,470	48.35	F
Westbound US 50	Bradshaw Road to Watt Ave.	4	0	8,327	46.05	F	8,337	46.19	F	8,349	46.38	F
	Watt Ave. to Howe Avenue	4	1	8,218	34.54	D	8,210	34.48	D	8,245	34.74	D
	Howe Avenue to 65th Street	4	1	8,634	45.07	F	8,622	44.90	E	8,628	44.99	E
1. Mixed-flow lanes only; does not include volumes in planned HOV lanes.												
Source: DKS Associates, 2011.												

**Table 5.10-31
 Cumulative Scenario Peak Hour Freeway Ramp Junction Level of Service**

Direction	Location	Junction Type	Cumulative		Cumulative Plus Project		Cumulative Plus No School Alternative	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
A.M. Peak Hour								
Eastbound US 50	65th Street Exit	Single-Lane Diverge	580	F	584	F	590	F
	65th Street Loop Entrance	Single-Lane Merge	553	F	555	F	556	F
	Howe Ave. Loop Entrance	Single-Lane Merge	649	E	621	E	624	E
	Howe Ave. Slip Entrance	Single-Lane Merge	410	D	413	D	413	D
	Watt Avenue Exit	Two-Lane Diverge	1,372	B	1,350	B	1,356	B
	Watt Ave. Loop Entrance	Single-Lane Merge	1,759	F	1,744	F	1,751	F
	Watt Ave. Slip Entrance	Single-Lane Merge	454	F	497	F	495	F
Westbound US 50	Watt Avenue Exit	Two-Lane Diverge	1,659	B	1,642	B	1,655	B
	Watt Ave. Loop Entrance	Single-Lane Merge	760	E	698	E	727	E
	Watt Ave. Slip Entrance	Lane Addition	1,759	F	1,744	E	1,751	E
	Howe Avenue Exit	Major Diverge	2,044	D	2,069	D	2,090	D
	Howe Ave. Loop Entrance	Single-Lane Merge	883	E	894	E	921	E
	Howe Ave. Slip Entrance	Lane Addition	808	C	873	C	866	C
	65th Street Loop Entrance	Single-Lane Merge	475	F	447	F	462	F
	65th Street Slip Entrance	Single-Lane Merge	319	F	339	F	335	F

**Table 5.10-31
 Cumulative Scenario Peak Hour Freeway Ramp Junction Level of Service**

Direction	Location	Junction Type	Cumulative		Cumulative Plus Project		Cumulative Plus No School Alternative	
			Ramp Volume	LOS	Ramp Volume	LOS	Ramp Volume	LOS
P.M. Peak Hour								
East-bound US 50	65th Street Exit	Single-Lane Diverge	634	F	657	F	670	F
	65th Street Loop Entrance	Single-Lane Merge	543	F	540	F	539	F
	Howe Ave. Loop Entrance	Single-Lane Merge	1,117	E	1,122	E	1,112	E
	Howe Ave. Slip Entrance	Single-Lane Merge	588	D	581	D	578	D
	Watt Avenue Exit	Two-Lane Diverge	1,565	B	1,523	B	1,557	B
	Watt Ave. Loop Entrance	Single-Lane Merge	1,361	E	1,366	E	1,383	E
	Watt Ave. Slip Entrance	Single-Lane Merge	495	F	527	F	514	F
West-bound US 50	Watt Avenue Exit	Two-Lane Diverge	2,191	F	2,220	F	2,215	F
	Watt Ave. Loop Entrance	Single-Lane Merge	679	E	675	E	677	E
	Watt Ave. Slip Entrance	Lane Addition	1,361	D	1,366	D	1,383	D
	Howe Avenue Exit	Major Diverge	1,936	D	1,927	D	1,938	D
	Howe Ave. Loop Entrance	Single-Lane Merge	593	E	622	E	625	E
	Howe Ave. Slip Entrance	Lane Addition	803	C	786	C	786	C
	65th Street Loop Entrance	Single-Lane Merge	556	E	543	E	538	E
	65th Street Slip Entrance	Single-Lane Merge	297	F	291	F	296	F

Source: DKS Associates, 2011.

**Table 5.10-32
 Cumulative Scenario Freeway Weaving Segment Peak Hour Operating Conditions**

Direction	Segment	Cumulative			Cumulative Plus Project			Cumulative Plus No School Alternative		
		Weaving Segment Speed (mph)	Weaving Segment Density (pcplph)	LOS	Weaving Segment Speed (mph)	Weaving Segment Density (pcplph)	LOS	Weaving Segment Speed (mph)	Weaving Segment Density (pcplph)	LOS
A.M. Peak Hour										
Eastbound US 50	65th Street Slip Entrance to Howe Avenue Exit	53.4	39.9	E	53.2	40.2	E	53.3	40.0	E
Westbound US 50	Hornet Drive Entrance to 65th Street Exit	56.9	36.8	E	56.8	36.9	E	56.9	36.8	E
P.M. Peak Hour										
Eastbound US 50	65th Street Slip Entrance to Howe Avenue Exit	52.0	39.4	E	51.5	39.7	E	51.7	39.6	E
Westbound US 50	Hornet Drive Entrance to 65th Street Exit	54.0	37.2	E	54.1	37.1	E	54.2	37.1	E

Source: DKS Associates, 2011.

**Table 5.10-33
 Cumulative Scenario Freeway Ramp Termini Queuing**

Ramp	Movement	Available Queue Length (feet) ¹	Peak Hour	Estimated Maximum Queue (feet)		
				Cumulative	Cumulative Plus Project	Cumulative Plus No School Alternative
US 50 Eastbound Exit to Howe Ave.	Left	1,200	A.M.	400	400	400
			P.M.	600	600	600
	Right	1,300	A.M.	1,350	1,350	1,450
			P.M.	1,450	1,550	1,500
US 50 Westbound Exit to Howe Ave.	Left	1,350	A.M.	350	350	400
			P.M.	600	550	550
	Through	975	A.M.	925	925	925
			P.M.	750	725	750
	Right	2,100	A.M.	1,850	1,850	1,850
			P.M.	2,400	2,450	2,450

1. Eastbound measured from intersection stop bar to Hornet Drive ramp split. Westbound measured from intersection stop bar to gore point. Total queue length in all lanes associated with the subject movement.

Source: DKS Associates, 2011.

- (d) Jackson Road and Folsom Boulevard – Traffic from the project would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.
- (e) Florin Perkins Road and Folsom Boulevard – Traffic from the project would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.
- (f) Florin Perkins Road and Kiefer Boulevard - Traffic from the project would result in LOS F conditions in the p.m. peak hour. This is considered a **significant** impact.
- (g) Watt Avenue and US 50 Westbound Ramps - Traffic from the project would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.
- (h) Jackson Road and 14th Avenue - Traffic from the project would result in LOS E conditions in the a.m. peak hour with an increase in average delay of greater than 5 seconds. Traffic from the project would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.

Mitigation Measure(s)

- 5.10-20(a) *South Watt Avenue and Jackson Road – This impact could be mitigated by implementing a westbound double right turn lane. This mitigation measure would improve the average intersection delay to 120.4 seconds at LOS F in the p.m. peak hour. Adding the second westbound right turn lane would create a secondary impact to the adjacent property through the acquisition of additional right of way; this right of way is currently unavailable.*

*The approved Sacramento County General Plan Update includes a high capacity intersection at this location. The project applicant shall contribute a fair share to the implementation of the high capacity intersection at this location. The improvements could include a grade separated depressed free westbound right turn movement and a triple southbound left turn movement. A pedestrian overcrossing above the grade separated depressed westbound right turn at the northeast corner of the intersection would be required. However, as the design details and funding mechanism for this high capacity intersection are not complete, this impact remains **significant and unavoidable**.*

- 5.10-20(b) *Howe Avenue / Power Inn Road and Folsom Boulevard – Due to the built-up nature of this intersection, no feasible intersection improvements are identified.*

This intersection is located in the Folsom Boulevard corridor. The City of Sacramento 2030 General Plan level of service policy permits impacts at this location to be mitigated by "improvements to other parts of the city wide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation

infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to the listed road segment in order to conform to the General Plan.

As no feasible mitigation measure has been identified at the subject intersection, and no alternative mitigation measure in accordance with General Plan policy has been identified, this impact remains **significant and unavoidable**.

- 5.10-20(c) *Power Inn Road and 14th Avenue – The project applicant shall pay a fair share contribution toward restriping the westbound approach to provide left turn, through, through-right turn, and right turn lanes. This mitigation measure would improve the average intersection delay to 48.6 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the project to a **less than significant** level.*
- 5.10-20(d) *Jackson Road and Folsom Boulevard – The project applicant shall pay a fair share contribution toward providing an eastbound right turn overlap traffic signal phase. This mitigation measure would improve the average intersection delay to 67.7 seconds at an acceptable LOS E in the p.m. peak hour. This would reduce the impact of the project to a **less than significant** level.*
- 5.10-20(e) *Florin Perkins Road and Folsom Boulevard – The project applicant shall pay a fair share contribution toward providing a northbound right turn overlap traffic signal phase. This mitigation measure would improve the average intersection delay to 53.6 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the project to a **less than significant** level.*
- 5.10-20(f) *Florin Perkins Road and Kiefer Boulevard – This unsignalized intersection experiences extensive delay for the westbound left turn movement. This intersection does not meet peak hour traffic signal warrants both with and without the project. The project applicant shall pay a fair share contribution toward providing a traffic signal at this intersection, coordinated with the adjacent light rail crossing and the intersection of Florin Perkins Road and Folsom Boulevard. This mitigation measure would improve the average intersection delay to 33.3 seconds at an acceptable LOS C in the p.m. peak hour. This would reduce the impact of the project to a **less than significant** level.*
- 5.10-20(g) *Watt Avenue and US 50 Westbound Ramps – The cumulative analysis assumes implementation of the future interchange improvement. No additional feasible mitigation measure has been identified. The impacts of the project on this intersection remain **significant and unavoidable**.*
- 5.10-20(h) *Jackson Road and 14th Avenue – The project applicant shall pay a fair share to provide a westbound double right turn lane from Jackson Road (east leg) to Jackson Road (north leg) and to provide a southbound double left turn lane from Jackson Road (north leg) to Jackson Road (east leg). This mitigation measure would improve the average intersection delay to 32.1 seconds at an acceptable LOS C in the a.m. peak hour, and 42.7 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the project to a **less than significant** level.*

Table 5.10-34 summarizes the intersection level of service with mitigation.

Impact 5.10-21 Roadway Segments

The project would increase traffic volumes on study area roadway segments and would cause significant impacts under the cumulative with project scenario at the following locations:

- (a) South Watt Avenue - Jackson Road to Fruitridge Road - Traffic from the project would result in LOS E conditions. This is considered a **significant** impact.
- (b) Jackson Road - 14th Avenue to South Watt Avenue - Traffic from the project would result in LOS F conditions with an increase in volume-to-capacity ratio of greater than 0.02. This is considered a **significant** impact.

Mitigation Measure(s)

- 5.10-21(a) *South Watt Avenue - Jackson Road to Fruitridge Road –No feasible mitigation measure has been identified. The roadway is assumed at its maximum number of six lanes per the City of Sacramento 2030 General Plan and Sacramento County proposed 2030 General Plan Update. Further widening would not be consistent with City of Sacramento General Plan goals and objectives to create pedestrian-friendly streets and Smart Growth Policies. The impacts of the project on this segment remain **significant and unavoidable**.*
- 5.10-21(b) *Jackson Road - 14th Avenue to South Watt Avenue – This roadway segment has been assumed to be four lanes wide (City of Sacramento 2030 General Plan). Further widening would not be consistent with City of Sacramento General Plan goals and objectives to create pedestrian-friendly streets and Smart Growth Policies. The widening will be considered in the State Route 16 (Jackson Road) Corridor Study that will identify future right-of-way requirements. The impacts of the project on this segment remain **significant and unavoidable**.*

Impact 5.10-22 Freeway Mainline

The project would increase traffic volumes on the freeway mainline. The following freeway mainline segments, operating at LOS F without the project, would experience an increase in traffic volumes:

- (a) Eastbound US 50 - 65th Street to Howe Avenue - a.m. peak hour
- (b) Eastbound US 50 - Watt Avenue to Bradshaw Road - a.m. and p.m. peak hours
- (c) Westbound US 50 - Bradshaw Road to Watt Avenue - p.m. peak hour
- (d) Westbound US 50 - Howe Avenue to 65th Street - a.m. peak hour

During peak hours, LOS F operating conditions would degrade on these US 50 segments. This is considered a **significant** impact.

**Table 5.10-34
 Cumulative Scenario Intersection Operating Conditions With Mitigation**

Intersection	Traffic Control	Peak Hour	Cumulative		Cumulative Plus Project				Cumulative Plus No School Alternative			
			LOS ¹	Delay ²	Without Mitigation		With Mitigation		Without Mitigation		With Mitigation	
					LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²
9. Power Inn Road and 14th Avenue	Signal	P.M.	E	65.2	E	72.0	D	48.6	E	70.7	D	49.2
10. Notre Dame Drive / Jackson Road and Folsom Boulevard	Signal	P.M.	F	131.8	F	141.4	E	67.7	F	133.7	-	-
13. Julliard Drive / Florin Perkins Road and Folsom Boulevard	Signal	P.M.	F	82.2	F	88.1	D	53.6	F	92.7	D	53.7
14. Florin Perkins Road and Kiefer Blvd.	2-Way Stop / Signal	P.M.	E	36.5	F	57.7	C	33.3	F	53.1	C	32.7
17. Jackson Road and 14th Avenue	Signal	A.M.	E	61.7	E	67.9	C	32.1	E	75.4	C	32.0
		P.M.	F	99.3	F	122.8	D	42.7	F	118.8	D	42.0
1. Level of Service 2. Seconds of Delay <i>Source: DKS Associates, 2011.</i>												

Mitigation Measure(s)

- 5.10-22 *No feasible mitigation measure has been identified. To fully mitigate this impact, it would be necessary to reduce the project traffic such that no additional traffic were added to the freeway segments. Additional widening of the freeway would reduce the severity of the impact, but was not considered feasible due to right-of-way restrictions and the numerous transportation structures that would need to be modified and/or replaced. The impacts of the project on the freeway mainline would remain **significant and unavoidable**.*

Impact 5.10-23 Freeway Ramp Junctions

The project would increase traffic volumes at freeway ramp junctions. The following freeway ramp junctions, operating at LOS F without the project, would experience an increase in traffic volumes:

- (a) Eastbound US 50 - 65th Street Exit - a.m. and p.m. peak hours
- (b) Eastbound US 50 - 65th Street Loop Entrance - a.m. peak hour
- (c) Eastbound US 50 - Watt Avenue Slip Entrance - a.m. and p.m. peak hours
- (d) Westbound US 50 - Watt Avenue Exit - p.m. peak hour
- (e) Westbound US 50 - 65th Street Slip Entrance - a.m. peak hour

During peak hours, LOS F operating conditions would degrade at these US 50 ramp junctions. This is considered a **significant** impact.

Mitigation Measure(s)

- 5.10-23 *No feasible mitigation measure has been identified. The impacts of the project on freeway ramp junctions would remain **significant and unavoidable**.*

Impact 5.10-24 Freeway Weaving Segments

The project would increase traffic volumes at freeway weaving segments. The changes in freeway weaving segment operating conditions do not exceed the standards of significance for impacts to the freeway weaving segments. The impacts of the project would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-25 Freeway Ramp Queuing

The project would increase traffic volumes on the freeway ramps. At both eastbound and westbound exit ramps to Howe Avenue, the expected queues would increase and would exceed the available storage space during peak periods. This is considered a **significant** impact.

Mitigation Measure(s)

5.10-25 *No feasible mitigation measure has been identified. The impacts of the project on freeway ramp queuing would remain **significant and unavoidable**.*

Impact 5.10-26 Pedestrian and Bicycle Circulation

The project would not remove any existing or planned pedestrian facility. In addition, the project would not remove any existing bicycle facility or any facility that is planned in the City of Sacramento Bikeway Master Plan. The project shall be required to construct all frontage improvements along South Watt Avenue, Jackson Road, and all new roadways in the project vicinity, in conformance with City design standards in coordination with Caltrans and Sacramento County. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards. Therefore, the impact of the project on pedestrian and bicycle circulation is **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-27 Transit System

RT is currently working in coordination with Sacramento County to develop a long range plan to provide BRT along S. Watt Avenue and Jackson Road. The project would increase demands for public transit facilities, which would be accommodated with the proposed BRT along S. Watt Avenue and Jackson Road in the future. Therefore, the impact of the project on the transit system is **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures (Cumulative Plus No School Alternative)

Impact 5.10-28 Intersections

The alternative would increase traffic volumes at study area intersections and would cause significant impacts under the Cumulative Plus No School Alternative scenario at the following intersections:

- (a) South Watt Avenue and Jackson Road - Traffic from the alternative would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.
- (b) Power Inn Road and 14th Avenue – Traffic from the alternative would result in LOS E conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.

- (c) Florin Perkins Road and Folsom Boulevard – Traffic from the alternative would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.
- (d) Florin Perkins Road and Kiefer Boulevard - Traffic from the alternative would result in LOS F conditions in the p.m. peak hour. This is considered a **significant** impact.
- (e) Watt Avenue and US 50 Westbound Ramps - Traffic from the alternative would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.
- (f) Jackson Road and 14th Avenue - Traffic from the alternative would result in LOS E conditions in the a.m. peak hour with an increase in average delay of greater than 5 seconds. Traffic from the alternative would result in LOS F conditions in the p.m. peak hour with an increase in average delay of greater than 5 seconds. This is considered a **significant** impact.

Mitigation Measure(s)

- 5.10-28(a) *South Watt Avenue and Jackson Road – This impact could be mitigated by implementing a westbound double right turn lane. This mitigation measure would improve the average intersection delay to 120.9 seconds at LOS F in the p.m. peak hour. Adding the second westbound right turn lane would create a secondary impact to the adjacent property through the acquisition of additional right of way; this right of way is currently unavailable.*

*The approved Sacramento County General Plan Update includes a high capacity intersection at this location. The alternative applicant shall contribute a fair share to the implementation of the high capacity intersection at this location. The improvements could include a grade separated depressed free westbound right turn movement and a triple southbound left turn movement. A pedestrian overcrossing above the grade separated depressed westbound right turn at the northeast corner of the intersection would be required. However, as the design details and funding mechanism for this high capacity intersection are not complete, this impact remains **significant and unavoidable**.*

- 5.10-28(b) *Power Inn Road and 14th Avenue – The alternative applicant shall pay a fair share contribution toward restriping the westbound approach to provide left turn, through, through-right turn, and right turn lanes. This mitigation measure would improve the average intersection delay to 49.2 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the alternative to a **less than significant** level.*

- 5.10-28(c) *Florin Perkins Road and Folsom Boulevard – The alternative applicant shall pay a fair share contribution toward providing a northbound right turn overlap traffic signal phase. This mitigation measure would improve the average intersection delay to 53.7 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the alternative to a **less than significant** level.*

- 5.10-28(d) *Florin Perkins Road and Kiefer Boulevard – This unsignalized intersection experiences extensive delay for the westbound left turn movement. This intersection does meet peak hour traffic signal warrants both with and without the alternative. The alternative applicant shall pay a fair share contribution toward providing a traffic signal at this intersection, coordinated with the adjacent light rail crossing and the intersection of Florin Perkins Road and Folsom Boulevard. This mitigation measure would improve the average intersection delay to 32.7 seconds at an acceptable LOS C in the p.m. peak hour. This would reduce the impact of the alternative to a **less than significant** level.*
- 5.10-28(e) *Watt Avenue and US 50 Westbound Ramps – The cumulative analysis assumes implementation of the future interchange improvement. No additional feasible mitigation measure has been identified. The impacts of the alternative on this intersection remain **significant and unavoidable**.*
- 5.10-28(f) *Jackson Road and 14th Avenue – The alternative applicant shall pay a fair share to provide a westbound double right turn lane from Jackson Road (east leg) to Jackson Road (north leg) and to provide a southbound double left turn lane from Jackson Road (north leg) to Jackson Road (east leg). This mitigation measure would improve the average intersection delay to 32.0 seconds at an acceptable LOS C in the a.m. peak hour, and 42.0 seconds at an acceptable LOS D in the p.m. peak hour. This would reduce the impact of the alternative to a **less than significant** level.*

Table 5.10-34 summarizes the intersection level of service with mitigation.

Impact 5.10-29 Roadway Segments

The alternative would increase traffic volumes on study area roadway segments and would cause significant impacts under the Cumulative Plus No School Alternative scenario at the following locations:

- (a) South Watt Avenue - Jackson Road to Fruitridge Road - Traffic from the alternative would result in LOS E conditions. This is considered a **significant** impact.
- (b) Jackson Road - 14th Avenue to South Watt Avenue - Traffic from the alternative would result in LOS F conditions with an increase in volume-to-capacity ratio of greater than 0.02. This is considered a **significant** impact.

Mitigation Measure(s)

- 5.10-29(a) *South Watt Avenue - Jackson Road to Fruitridge Road –No feasible mitigation measure has been identified. The roadway is assumed at its maximum number of six lanes per the City of Sacramento 2030 General Plan and Sacramento County 2030 General Plan Update. Further widening would not be consistent with City of Sacramento General Plan goals and objectives to create pedestrian-friendly streets and Smart Growth Policies. The impacts of the alternative on this segment remain **significant and unavoidable**.*

- 5.10-29(b) *Jackson Road - 14th Avenue to South Watt Avenue – This roadway segment has been assumed to be four lanes wide (City of Sacramento 2030 General Plan). Further widening would not be consistent with City of Sacramento General Plan goals and objectives to create pedestrian-friendly streets and Smart Growth Policies. The widening will be considered in the State Route 16 (Jackson Road) Corridor Study that will identify future right-of-way requirements. The impacts of the alternative on this segment remain **significant and unavoidable**.*

Impact 5.10-30 Freeway Mainline

The alternative would increase traffic volumes on the freeway mainline. The following freeway mainline segments, operating at LOS F without the alternative, would experience an increase in traffic volumes:

- (a) Eastbound US 50 - 65th Street to Howe Avenue - a.m. and p.m. peak hours
- (b) Eastbound US 50 - Watt Avenue to Bradshaw Road - a.m. peak hour
- (c) Westbound US 50 - Bradshaw Road to Watt Avenue - p.m. peak hour
- (d) Westbound US 50 - Howe Avenue to 65th Street - a.m. peak hour

During peak hours, LOS F operating conditions would degrade on these US 50 segments. This is considered a **significant** impact.

Mitigation Measure(s)

- 5.10-30 *No feasible mitigation measure has been identified. To fully mitigate this impact, it would be necessary to reduce the project traffic such that no additional traffic was added to the freeway segments. Additional widening of the freeway would reduce the severity of the impact, but was not considered feasible due to right-of-way restrictions and the numerous transportation structures that would need to be modified and/or replaced. The impacts of the alternative on the freeway mainline would remain **significant and unavoidable**.*

Impact 5.10-31 Freeway Ramp Junctions

The alternative would increase traffic volumes at freeway ramp junctions. The following freeway ramp junctions, operating at LOS F without the alternative, would experience an increase in traffic volumes:

- (a) Eastbound US 50 - 65th Street Exit - a.m. and p.m. peak hours
- (b) Eastbound US 50 - 65th Street Loop Entrance - a.m. peak hour
- (c) Eastbound US 50 - Watt Avenue Slip Entrance - a.m. and p.m. peak hours
- (d) Westbound US 50 - Watt Avenue Exit - p.m. peak hour
- (e) Westbound US 50 - 65th Street Slip Entrance - a.m. peak hour

During peak hours, LOS F operating conditions would degrade at these US 50 ramp junctions. This is considered a **significant** impact.

Mitigation Measure(s)

5.10-31 *No feasible mitigation measure has been identified. The impacts of the alternative on freeway ramp junctions would remain **significant and unavoidable**.*

Impact 5.10-32 Freeway Weaving Segments

The alternative would increase traffic volumes at freeway weaving segments. The changes in freeway weaving segment operating conditions do not exceed the standards of significance for impacts to the freeway weaving segments. The impacts of the alternative would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-33 Freeway Ramp Queuing

The alternative would increase traffic volumes on the freeway ramps. At both eastbound and westbound exit ramps to Howe Avenue, the expected queues would increase and would exceed the available storage space during peak periods. This is considered a **significant** impact.

Mitigation Measure(s)

5.10-33 *No feasible mitigation measure has been identified. The impacts of the alternative on freeway ramp queuing would remain **significant and unavoidable**.*

Impact 5.10-34 Pedestrian and Bicycle Circulation

The project would not remove any existing or planned pedestrian facility. The project would not remove any existing bicycle facility or any facility that is planned in the City of Sacramento Bikeway Master Plan. The project shall be required to construct all frontage improvements along South Watt Avenue, Jackson Road, and all new roadways in the project vicinity, in conformance with City design standards in coordination with Caltrans and Sacramento County. Circulation and access to all proposed public spaces shall include sidewalks that meet Americans with Disabilities Act standards. Therefore, the impact of the project on pedestrian and bicycle circulation is **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Impact 5.10-35 Transit System

RT is currently working in coordination with Sacramento County to develop a long range plan to provide BRT along S. Watt Avenue and Jackson Road. The project would increase demands for public transit facilities, which would be accommodated with the proposed BRT along S. Watt Avenue and Jackson Road in the future. Therefore, the impact of the project on the transit

system is ***less than significant***, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Project Local Circulation Impacts

In addition to the analysis of project impacts in conjunction with the City's standards of significance for CEQA review, an analysis of site access and vehicular circulation was also conducted.

Intersection Queuing - Jackson Road and South Watt Avenue

This analysis focuses on the project's entrances and potential effects on the adjacent City street system. As shown on Figure 5.10-2, the project has eight entering/exiting access points to/from Jackson Road and South Watt Avenue. Exiting movements from the site will be controlled by a traffic signal or a stop sign. Traffic queued at the intersections will extend into the project site. If ample space is not provided for the queuing of exiting vehicles, such vehicles could interrupt the operation of adjacent on-site intersections, whether they are signalized or unsignalized. A blockage at the adjacent on-site intersections could cause vehicles entering the site to queue back onto Jackson Road and/or South Watt Avenue, adversely affecting operations on the City street system.

Queuing analyses were conducted to determine the appropriate minimum throat lengths recommended for the site roadways, based upon the assumed intersection geometry. Table 5.10-35 summarizes the results of the queuing analysis.

The following minimum throat lengths are recommended for the site roadway approaches to Jackson Road and South Watt Avenue. (These lengths are based upon the assumed intersection geometry. Changes in intersection geometry could result in different minimum throat lengths).

- Intersection 19 – Rock Creek Parkway and Jackson Road – 350 feet.
- Intersection 32 - Lot B / Lot A Access Road and Jackson Road - 250 feet.
- Intersection 36 - South Watt Avenue and Rock Creek Parkway - 225 feet.
- Unsignalized Intersections 33, 34, 35, 37, and 38 - 50 feet.

In accordance with City of Sacramento design procedures, major street right turn / deceleration lanes will be required at each intersection with Jackson Road and South Watt Avenue.

Rock Creek Parkway Conceptual Design

Rock Creek Parkway is a collector street through the project site, extending from Jackson Road to South Watt Avenue. It is proposed to include one travel lane per direction, a marked Class-II bikeway in each direction, and a parking lane at the outside roadway edge. The street includes a median about 74 feet wide.

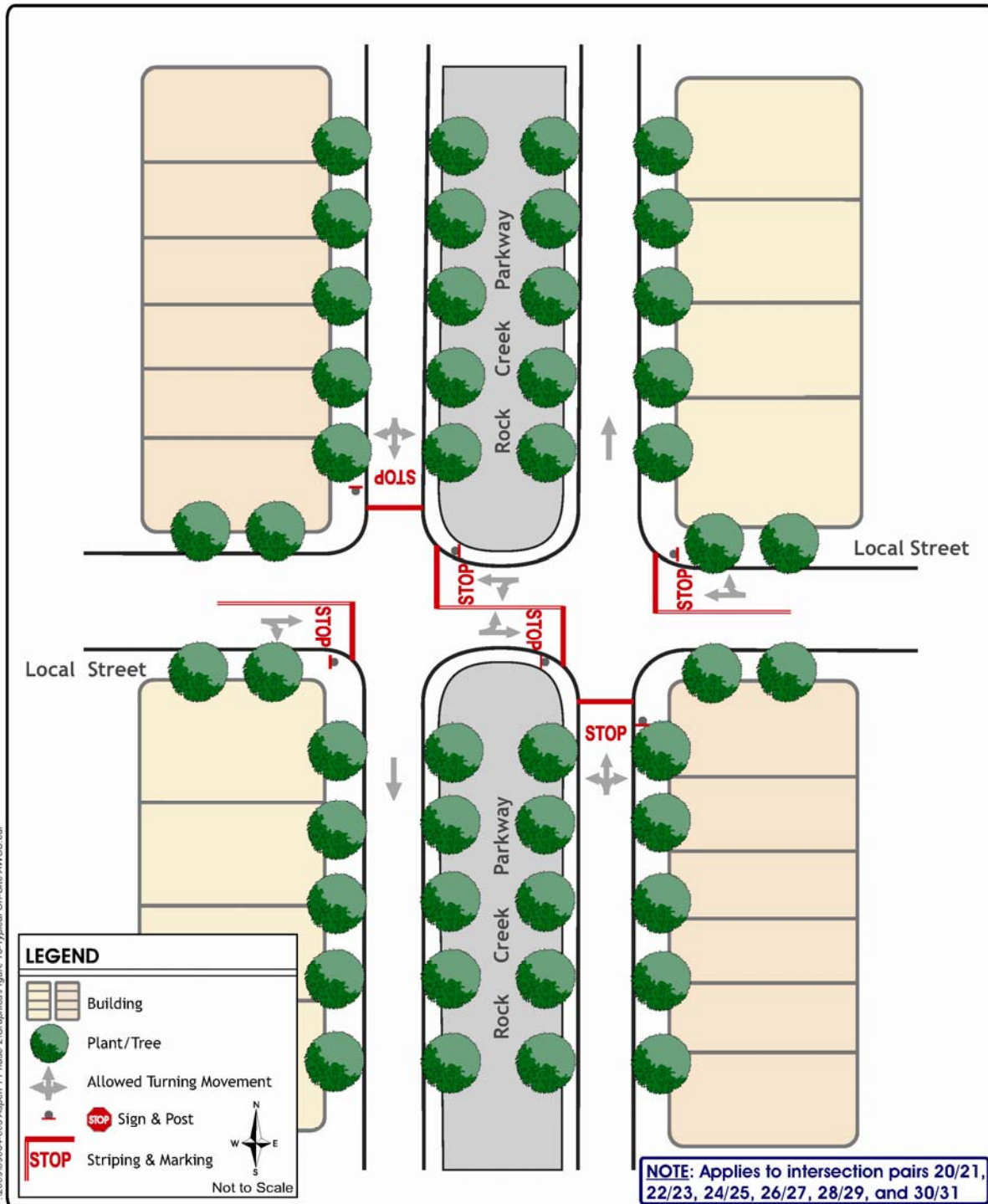
Anticipated daily traffic volumes along Rock Creek Parkway are estimated to be 5,225 vehicles at Jackson Road and 3,850 vehicles at South Watt Avenue. Based on the City's daily volume thresholds for roadway segments shown in Table 5.10-4, the roadway would operate at LOS A as a 2-lane minor collector street. The City's minor collector street typical cross-section references a daily volume of 4,000 to 7,000 vehicles.

**Table 5.10-35
 On-Site Queuing At Project Exits**

Intersection	Approach	Movement	Estimated Maximum Queue (Lane-Feet)							
			Existing Plus Project		Existing Plus No School Alternative		Cumulative Plus Project		Cumulative Plus No School Alternative	
			A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour
19. Rock Creek Parkway and Jackson Road	Northbound	Left	250	275	225	250	350	250	350	250
		Right	25	50	25	50	25	50	25	50
32. Lot B / Lot A Access Road and Jackson Road	Northbound	Left - Right	125	250	125	250	100	225	100	225
33. Lot A Access and Jackson Road	Northbound	Right	25	25	25	25	25	25	25	25
34. South Watt Avenue and Lot A Access	Eastbound	Right	25	50	25	50	25	50	25	50
35. South Watt Avenue and Lot A / Lot D Access Road	Eastbound	Right	25	25	25	25	25	50	25	50
36. South Watt Avenue and Rock Creek Parkway	Eastbound	Left	175	150	150	125	125	150	100	150
		Right	125	225	125	225	100	200	100	200
37. South Watt Avenue and Street 30	Eastbound	Right	25	25	25	25	25	25	25	25
38. South Watt Avenue and Lot F Access	Eastbound	Right	25	25	25	25	25	25	25	25

Source: DKS Associates, 2011.

Figure 5.10-16
Typical On-Site All Way Stop Controlled Intersection



As part of the project submittal, the applicant has included a traffic plan that includes all-way stop and two-way stop sign control at the major intersections along Rock Creek Parkway. This plan is illustrated in Figure 5.10-2. Typical all-way stop sign control at a Rock Creek Parkway intersection is illustrated in Figure 5.10-16. Most of the locations will operate as two individually-controlled intersections separated by the planned median. The traffic analysis utilized this proposed plan, and the subject intersections are anticipated to operate at very good levels of service in the peak commuter hours (generally at LOS A).

With these operating conditions, little queuing is anticipated at the intersections (less than one car per approach on average), and the proposed median width is adequate to accommodate vehicles queued between intersections under normal operating conditions. Along the median and at all intersections, landscape design should accommodate the City's guidelines for sight distance at intersections.

As a minor collector street, it is recommended that no driveway access be permitted to single-family residences. The proposed plan shows alleyways serving single-family residences along Rock Creek Parkway to provide driveway access from the rear. For other uses, such as multi-family residences, it is recommended that driveways be located at least 120 feet from other intersections and driveways.

In response to the Notice of Preparation, the Sacramento Metropolitan Air Quality Management District suggested that roundabouts be considered along Rock Creek Parkway rather than stop-sign control. Roundabouts would reduce stops, delay, air pollution, and reduce energy use.

It is noted that five all-way stops are proposed along Rock Creek Parkway. While these stops may be effective in reducing cut-through traffic, they are also inconvenient for residents within the Aspen 1-New Brighton project. Proper roundabout design could also safely and efficiently accommodate pedestrians and bicyclists.

The location of transit stops along Rock Creek Parkway should be coordinated with Regional Transit. Stopped transit vehicles can be accommodated within the planned parking lane at the outside edge of the roadway.

Bikeways

The proposed plan includes on-street Class-II bikeways along Rock Creek Parkway and Aspen Promenade. Class-II bikeways would also be provided along Jackson Road and South Watt Avenue as part of frontage improvements, subject to review and approval by Caltrans since Jackson is still a state facility at the time of the preparation of this Draft EIR.

The City's Bikeway Master Plan (See Figure 5.10-3) includes a Class-I off-street bikeway along the power line diagonally through the project site. The project plans accommodate this bikeway through the developed areas of the project site.

Jackson Road Right-of-Way

As noted previously, the City is participating in a Jackson Road corridor study that will identify future right-of-way requirements to accommodate all modes of transportation (automobiles, trucks, pedestrians, bicycles, and transit). This study will also address a high capacity intersection at Jackson Road and South Watt Avenue. It is important that the project permit

future transportation improvements through the provision of adequate right-of-way. Additionally, the design of the high capacity intersection and / or transit stops may affect access locations to the commercial parcel in the northeast corner of the project site.

Endnotes

¹ <http://www.msa2.saccounty.net/transportation/Pages/BikewayMasterPlan.aspx> Accessed 30 November 2010.

² <http://www.sacrt.com/rtataglace.stm> Accessed 30 November 2010.

³ City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

⁴ City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

⁵ Traffic Impact Analysis Guidelines, County of Sacramento, July 2004.

5.11 URBAN DESIGN AND VISUAL RESOURCES

5.11

URBAN DESIGN AND VISUAL RESOURCES

5.11.0 INTRODUCTION

The Urban Design and Visual Resources chapter of the EIR describes existing visual and aesthetic resources for the Aspen 1-New Brighton project (proposed project) site and the region, and evaluates potential impacts of the project with respect to aesthetic resources. In addition, goals, policies, and regulations pertaining to aesthetics from the *Sacramento 2030 General Plan*¹ and the City of Sacramento Municipal Code² are described. The California Environmental Quality Act (CEQA) describes the concept of aesthetic resources in terms of scenic vistas, scenic resources (such as trees, rock outcroppings, and historic buildings within a state scenic highway), the existing visual character or quality of the project site, and light and glare.

The following impact analysis is based on information drawn from the *Sacramento 2030 General Plan* and the *Sacramento 2030 General Plan Draft Master EIR* (MEIR).³ In addition, a site survey was conducted by Raney in April 2011.

5.11.1 EXISTING ENVIRONMENTAL SETTING

The following setting information provides an overview of the existing condition of visual resources in the proposed project area.

Regional Setting

While the Sacramento region has significant high quality open space areas devoted to agriculture and recreational uses, the City of Sacramento is predominantly an urbanized area. Goal LU 2.3 of the *Sacramento 2030 General Plan* is to “Maintain multi-functional ‘green infrastructure’ consisting of natural areas, open space, urban forest, and parkland, which serves as a defining physical feature of Sacramento, provides visitors and residents with access to open space and recreation, and is designed for environmental sustainability.” A wide variety of plant life, both native and non-native, exists within the urbanized areas of Sacramento, the most predominant of which is the large number of street trees throughout the City. The Sacramento Tree Foundation’s *State of the Trees Report* (2000) identifies approximately 1.74 million trees within the City of Sacramento, with 155,000 publicly managed in park and street settings.

In addition to the vegetative aesthetic resources of the Sacramento region, the Sacramento area also contains numerous historic structures listed on both the National Register of Historic Places and the list of State Historical Landmarks, not only for historical significance, but also as representative examples of various periods of architecture. Many of these historic resources can be considered aesthetic resources because of their visually significant architecture.

Project Area Setting

The proposed project site is located at the southwest corner of Jackson Highway and South Watt Avenue in the City of Sacramento. A small portion of the project site is located outside the

city limits, within unincorporated Sacramento County. In addition, the project site is located within the Fruitridge Broadway Community Plan area of the Sacramento General Plan.

The Fruitridge Broadway Community Plan area is largely residential with several major commercial corridors running through the area and has a large concentration of industrial land uses to the northeast. A significant amount of vacant land is available for development, with vacant parcels located in the northeast and smaller parcels scattered throughout the Fruitridge Broadway Community Plan Area.

The project site is bordered to the west by the former Florin Perkins Landfill (currently an active construction and demolition debris recycling center), to the south by an active Class III landfill (L and D Landfill), to the north by Jackson Highway, and to the east by South Watt Avenue. In addition, industrial uses are located to the southeast and southwest of the project site. Beyond Jackson Highway to the north is Teichert Perkins plant, which is an active sand and gravel processing sales facility. East of South of Watt Avenue is Teichert Aspen 2, a former mine site similar to the project site. Uses to the northeast of the site include multi-family and single-family residential. Three power line towers are located on the project site and the power lines traverse the project site from the northern boundary to the western boundary. In addition, a cell phone tower is located on the northern boundary of the site along Jackson Highway.

Unique Visual Features of the Project Site

The project site is currently used for aggregate mining related uses, including washponds, drying beds, and a conveyor belt system. Two tunnels under Jackson Highway and South Watt Avenue connect the conveyor belt system to the Teichert Perkins Plant and Aspen 2 property. The project site elevations range from approximately 12 feet mean sea level (msl) to 50 feet msl due to significant mining operations and subsequent fill operations. During rainy weather, water collects in these aggregate related pits, and numerous species of vegetation are now growing in them. The drying beds in the central portion of the site are frequently disturbed. However, the four industrial washponds located in northern portion of the site contain vegetation, including wood riparian vegetation. In addition, the southern portion of the site is actively farmed. Structures on-site include an existing corporation yard in the northwest corner of the site and metal shed in the northeast portion of the site. Prior to development, all structures would be removed. It should be noted that the structures are less than 50 years old and are not considered historic structures.

Approximately 22 trees on-site met the size criteria for heritage trees. Eighteen of the heritage trees are located in the northwestern portion of the site near the washponds. The remaining four heritage trees are located south of the former nursery site at the northeast corner of the project site.

The northeastern portion of the site is at-grade which surrounding uses and is a former nursery site. In addition, the former nursery site covered by asphalt, which deters growth of aquatic plants. Two structures remain on the nursery site, a well and a metal shed. In addition, overhead electrical transmission lines traverse the southwestern portion of the site with three towers spaced evenly across the site. The base of each of the towers was not mined, and as a result, the tower's footings are at the original grade of the surrounding areas, approximately 30 to 35 feet above the project site. A mining conveyor belt traverses the central portion of the site from the eastern boundary to the northwest corner of the site. The belt continues through tunnels under Jackson Highway to the north and South Watt Avenue to the east.

External views from the site vary depending on location. Views of the project site to the west and south are blocked by a former landfill/existing recycle center and existing landfill, respectively. In addition, aggregate mining and related uses are located to the north and east of the project. However, views of the site from Jackson Highway and Hedge Avenue to the north and west are afforded to passing vehicles.

Project Features

The project would include 133.5 acres of land designated Single-Family Residential located in the northwest, center, and southeast portions of the project site (including 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential) and 43.1 acres of land designated Multi-Family Residential/Mixed Use located in the central and southern portions of the project site. The project would include the following additional uses: 13.1 acres of land designated Shopping Center located in the northeast portion of the site; 14.4 acres of land designated Parks/Open Space in three separate areas throughout the project site; and 28.2 acres of land designated Urban Farm in the southwest portion of the project site.

It should be noted that the proposed project would include stockpiling of up to 500,000 cubic yards of soil over the next five to 10 years. This soil would be used to raise the existing ground surface and recontour the project site. Development of the proposed project, including overexcavation, recompaction, and construction of residential and commercial uses would occur in phases in order to temporarily allow for continued mining operations on-site.

The applicant is proposing PUD Design Guidelines as part of the Aspen I New Brighton Planned Unit Development and Special Planning District. The PUD Design Guidelines principles include the following: promote wellness, create community, reinvigorate existing areas, promote sustainable practices, include a mixture of uses, foster a distinctive blend of architecture, and encourage alternative modes of travel. The applicant proposes to establish a new park-oriented neighborhood that showcases the best elements of new community design while featuring references to the historical agrarian uses. It should be noted that the PUD Design Guidelines are available at the City of Sacramento for review.

5.11.2 REGULATORY BACKGROUND

Specific federal or State regulations do not directly pertain to the visual quality of an area. However, applicable policies and regulations established in the City of Sacramento 2030 General Plan, City of Sacramento 2030 General Plan Draft Master EIR, and Municipal Code are listed below.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The City of Sacramento adopted the *Sacramento 2030 General Plan* in March 2009. The following *Sacramento 2030 General Plan* goals and policies are applicable to aesthetics.
Land Use and Urban Design Element

Goal LU 2.3 City of Trees and Open Spaces. Maintain a multi-functional “green infrastructure” consisting of natural areas, open space, urban forest, and parkland, which serves as a defining physical feature of Sacramento, provides visitors and residents with access to open space and recreation, and is designed for environmental sustainability.

Policy LU 2.3.1 Multi-functional Green Infrastructure. The City shall strive to create a comprehensive and integrated system of parks, open space, and urban forests that frames and complements the city’s urbanized areas.

Policy 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 non-accessible habitat areas with adjoining functional parkland; and
- Extending streets perpendicular to parks and open space and not closing off visual and/or physical access with development.

Goal LU 2.4 City of Distinctive and Memorable Places. Promote community design that produces a distinctive, high-quality built environment whose forms and character reflect Sacramento’s unique historic, environmental, and architectural context, and create memorable places that enrich community life.

Policy LU 2.4.1 Unique Sense of Place. The City shall promote quality site, architectural and landscape design that incorporates those qualities and characteristics that make Sacramento desirable and memorable including walkable blocks, distinctive parks and open spaces, tree-lined streets, and varied architectural styles.

Policy LU 2.4.2 Responsiveness to Context. The City shall promote building design that respects and responds to the local context, including use of local materials, responsiveness to Sacramento’s climate, and consideration of cultural and historic context of Sacramento’s neighborhoods and centers.

Policy LU 2.4.4 Iconic Buildings. The City shall encourage the development of iconic public and private buildings in key locations to create new landmarks and focal features that contribute to the city’s structure and identity.

- Goal LU 2.7 City Form and Structure. Require excellence in the design of the city's form and structure through development standards and clear design direction.
- Policy LU 2.7.1 Development Regulations. The City shall promote design excellence by ensuring City development regulations clearly express intended rather than prohibited outcomes and reinforce rather than inhibit quality design.
- Policy LU 2.7.4 Public Safety and Community Design. The City shall promote design of neighborhoods, centers, streets, and public spaces that enhances public safety and discourages crime by providing street-fronting uses ("eyes on the street"), adequate lighting and sight lines, and features that cultivate a sense of community 'ownership.'
- Policy LU 2.7.6 Walkable Blocks. The City shall require new development and redevelopment projects to create walkable, pedestrian-scaled blocks, publicly-accessible mid-block pedestrian routes where appropriate, and sidewalks appropriately-scaled for the anticipated pedestrian use.
- Policy LU 2.7.7 Buildings that Engage the Street. The City shall require buildings to be oriented to and actively engage and complete the public realm through such features as building orientation, build-to and setback lines, façade articulation, ground-floor transparency, and location of parking.
- Goal LU 5.2 Suburban Centers. Promote more attractive, pedestrian-friendly suburban centers that serve surrounding neighborhoods and businesses at local gathering places where people shop and socialize.
- Policy LU 5.2.3 Public Space. The City shall work with suburban centers to integrate pedestrian amenities, traffic-calming features, plazas and public areas, attractive streetscapes, shade trees, lighting, and open spaces within the existing center to create destinations for area residents to shop and gather.

Environmental Resources Element

- Goal ER 7.1 Visual Resource Preservation. Maintain and protect significant visual resources and aesthetics that define Sacramento.
- Policy ER 7.1.3 Minimize Removal of Existing Resources. The City shall require new commercial, industrial, and residential development to minimize the removal of mature trees, and other significant visual resources present on the site.

- Policy ER 7.1.4 Standards for New Development. The City shall seek to ensure that new development does not significantly impact Sacramento's natural and urban landscapes.
- Policy ER 7.1.5 Lighting. The City shall minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary.
- Policy ER 7.1.6 Glare. The City shall require that new development avoid the creation of incompatible glare through development design features.

City of Sacramento 2030 General Plan Master EIR

In addition, the Sacramento 2030 General Plan Master EIR identifies the following aesthetic features within the City as having the potential for positive or negative aesthetic impacts:

- Scenic Resources (natural open spaces, topographic formations, and landscapes);
- Views and Vistas (foothills and mountains, Central City: State Capitol Building, Old Sacramento, Tower Bridge, the Sacramento River, the Downtown Railyards, and Interstate [I-5]);
- Natural Elements (Trees, rivers);
- Open Space (conserved lands, parks, agricultural land, and vacant lands);
- Manmade Elements (buildings and structures, historic buildings and landmarks, freeways and scenic highways, and city neighborhoods);
- Sensitive Receptors (lighting, shadows, or surrounding visual character);
- Light and Glare (spill light and glare);
- Evolution of City Form; and
- Community Building Blocks (neighborhoods, centers, districts, and corridors).

City of Sacramento Zoning Ordinance

The Zoning Ordinance includes aesthetic review mechanism used by the City to maintain or improve aesthetic qualities within the City. Established codes regulate location, height, and size of buildings or structures, as well as signs, parking, and landscaping.

Planned Unit Development Designation

The Planned Unit Development (PUD) concept, a sub-section of the Zoning Ordinance, encourages the design of well-planned facilities through creative and imaginative planning. The PUD designation is intended to be utilized for large acreage development capable of achieving distinct environmental characteristics. As noted above, the *PUD Design Guidelines* for the proposed project are available for review at the City of Sacramento.

Multi-Family Residential Design Criteria

In addition, the City has design criteria that apply to large multi-family residential projects (100+ units). These criteria cover general building design and orientation, off-street parking design, on-site circulation, bicycle storage, landscaping and open space, trash enclosures, signage, and

personal safety. The 2030 General Plan design objective is to keep the sense of uniqueness and individuality of the traditional neighborhood by protecting and enhancing features such as scale and quality of housing, neighborhood character, and housing choice. However, the traditional neighborhood does allow diverse developments with attributes that emulate the neighborhood form and character. Design elements that achieve this objective include separate landscape buffering between projects; variation in building elevations and configurations between projects; variation in building heights; use of different building materials or a combination of different materials; and contrasting color schemes between projects.

5.11.3 IMPACTS AND MITIGATION MEASURES

This section provides the standards of significance and method of analysis used to determine aesthetic impacts.

Standards of Significance

For the purposes of this EIR, an impact to aesthetic resources would be considered significant if the proposed project would:

- Substantially alter or degrade the existing visual character or quality of the project site and its surroundings;
- Create a source of glare that would cause a public hazard or annoyance; or
- Create a new source of light that would be cast onto oncoming traffic or residential uses.

Method of Analysis

The section below gives full consideration to the development of the project site and acknowledges the physical changes to the existing setting. Impacts to the existing environment of the project site are to be determined by the contrast between the site's visual setting before and after proposed development. In this analysis, emphasis has been placed on the transformation of the existing vacant setting into a landscape characterized by proposed surface grading and residential and commercial buildout. Although few standards exist to singularly define the various individual perceptions of aesthetic value from person to person, the degree of visual change can be measured and described in a reasonably objective manner in terms of visibility and visual contrast, dominance, and magnitude.

Project-Specific Impacts and Mitigation Measures

5.11-1 Impacts related to the overexcavation and recompaction of on-site soils.

Although the proposed project includes overexcavation and recompaction of on-site soils, overexcavation and recompaction of the site would not alter the existing visual character of the site. It should be noted that the overexcavation could result in more stockpiles of soil on the site, but the soil stockpiles would not be any larger than the stockpiles currently on-site and these stockpiles would eventually be recompacted or hauled off-site. In addition, the overexcavation and recompaction would not create new sources of light and glare, nor conflict with any design guidelines associated with the site. As indicated on the grading plans, the existing varied topography of the site will be incorporated into the site design. Therefore, overexcavation and recompaction of the site

would result in a ***less than significant*** impact on visual resources, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.11-2 Impacts related to degradation of the existing visual character or quality of the project site and surroundings.

The site is surrounded by a former landfill and an existing recycling center to the west, an existing landfill to the south, commercial uses to the southwest, aggregate mining and related uses to the north and west, and residential uses to the northeast. The existing visual character of the project site is predominately mined/reclaimed land used as washponds, drying beds, and agricultural fields. In addition, the northeastern portion of the site is a former nursery site covered in asphalt. Although the former nursery portion of the site is at-grade with the surrounding uses, the majority of the project site elevations are below surrounding elevations.

The project designs include use of the topography and landscaping to enhance the visual character of the site. In addition, it should be noted that that site is anticipated for urban development in the General Plan. Development of the project would substantially alter the visual character of the site from mining/reclaimed mining activities to a variety of uses including residential, commercial, mixed use, and urban farm uses. Specifically, the at-grade former nursery portion to the northeast would be visually altered from asphalt to commercial uses. Similar to the former nursery uses, the proposed commercial would be visually consistent with the surrounding residential uses. Development of commercial uses along Jackson Highway would be consistent with Policy LU 2.7.6 which promotes high quality development character buildings along freeway corridors.

Although the project requires overexcavation, compaction, and the importation of fill, a majority of the project elevations would be 20 to 25 feet below surrounding uses. Slopes around the perimeter of the site would be improved with landscaping to create a 12-acre buffer zone between the project, Jackson Highway and South Watt Avenue. The landscaping would provide a visual buffer between vehicles traveling along adjacent roadways and the proposed residential units. In addition, the proposed urban farm uses and existing landscaping along the frontages of the L and D Landfill and former Florin Perkins Landfill sites would provide a visual buffer for the residences proposed as part of the project from these surrounding uses.

The residential portion of the project would include various densities with neighborhoods organized according to a gridded street system with short block lengths, pedestrian-friendly streets, and large planter areas. The design of the site would be consistent with Policy LU 2.7.6, Walkable Blocks.

In addition, the proposed urban farm uses in the southwestern portion of the site would be similar to the agricultural uses currently on the existing reclaimed agricultural land. The proposed project would include mixed-use development and an urban farm in the south and southwestern portion of the site, to serve as a transition zone between existing industrial uses to the west and proposed single-family and multi-family uses in the central and north-central portion of the site. Consistent with Policy LU 2.7.3, the

project would include transitions between high-density and building height to neighborhoods that have lower intensities and building heights. The proposed elementary school lot would serve as a visual buffer between the landfill to the south and the single-family uses to the north.

Conclusion

The visual character of the project site would be altered from existing mining operations to residential, commercial, and urban farm uses. However, the project is designed to use topographic features and landscaping to minimize impacts to visual character. In addition, the change in character of the site is consistent with urban development, which was anticipated for the site in the *Sacramento 2030 General Plan*. Therefore, development of the project site would result in **less than significant** impacts related to degradation of the existing visual character of the site, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.11-3 Impacts related to scenic vistas and visual resources.

The project site primarily consists of aggregate related uses, reclaimed agricultural land, and a former nursery site covered in asphalt. Limited vegetation on the project site consists of ruderal vegetation and grasses with willows interspersed throughout the wash ponds and agricultural fields. The proposed project would not degrade the existing visual character or quality of visual resources, but rather improve the aesthetic value of the project site by eliminating the current aggregate mining and related uses.

The *Sacramento 2030 General Plan Draft MEIR* lists aesthetic features as the following: scenic resources, views and vistas (natural open spaces, topographic formations, and landscapes); views and vistas (American River, Morrison Creek, and other local drainages, foothills, mountains, city skyline); natural elements (trees, American and Sacramento River); open space; manmade elements (buildings and structures, landmarks, scenic highways, freeways, and railroads); sensitive receptors; light and glare; evolution of city form; and community building blocks. Views of the project site and views through the project site are not considered scenic vistas or visual resources.

Uses adjacent to the project site are not afforded views of scenic vistas or visual resources through the project site. In addition, views from residences to the northeast would change from a former nursery site to suburban center and multi-family uses. Views from vehicles traveling along Jackson Highway and Hedge Avenue would change from mining related uses to commercial and single-family residential. It should be noted that the height of the L and D Landfill, which is located south of the project site, may be increased in the future.

As stated previously, project elevations would be below surrounding uses, which could make the project site more visible from the nearby roadways. However, the landscaped slopes and open space around the perimeter of the site would provide a 12-acre visual buffer from the vehicles traveling along Jackson Highway and South Watt Avenue. In addition, the site is anticipated for urban development in the General Plan. For these reasons, impacts to views and the existing visual character of the site would be

considered **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.11-4 Impacts related to light and glare.

The project site consists predominantly of previously mined land with reclaimed agricultural uses and aggregate related uses, such as washponds; therefore, very little light or glare is currently emitted from the project site. The change from an undeveloped property to a mixed-use development would generate new sources of light and glare such as parking lots, building lighting, and streetlights. While the types of lighting and their specific locations are not specified at this point, the proposed project could increase the amount of light and glare into adjacent areas.

Section 4.9 of the *PUD Guidelines* addresses the design and quality of the proposed lighting for the project. In particular, lighting is required to be “designed and located to minimize ambient lighting levels throughout the community while maintaining consistency with public safety standards” (p. 4-28), and off-street trail systems and pedestrian shortcuts “shall utilize low level lighting sources such as lighted bollards or other comparable solutions” (p. 4-28). (It should be noted that the off-street trail systems and pedestrian shortcuts that would be dedicated to the City would not utilize lighted bollards.) In addition, language is included to guide the heights of lighting placed on poles and buildings to ensure that illumination is not excessive or out of scale. Therefore, compliance with the *PUD Guidelines* would ensure that adverse light and glare impacts would not occur as a result of the project, resulting in a **less than significant** impact. Consequently, the project would not create impacts related to light and glare outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

5.11-5 Long-term impacts to the visual character of the region from the proposed project in combination with existing and future developments in the Sacramento area.

The proposed project is not expected to contribute to a cumulative change in the visual character of the Sacramento region. Due to the existing urban setting of the project area and the continued urban uses planned for the project area, the larger context of the visual impact of the proposed project would not be considered cumulatively significant. The areas surrounding the project site are currently developed for a wide range of uses, including residential, industrial, mining, and commercial uses. Because one of the purposes of the *PUD Design Guidelines* is to maintain consistency in the visual appearance of the project area and surrounding uses, the project would not conflict with existing adjacent uses, but would instead support those uses. Development in the project area would be guided by the development regulations provided in the *Design Guidelines* as well as the General Plan and Zoning Ordinance. Therefore, development of the project would not contribute to a cumulative change in the visual character of the

project area, and the cumulative impact associated with the proposed project would be considered ***less than significant***. Consequently, the project would not create cumulative urban design and visual character impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
None required.

Endnotes

¹ City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

² City of Sacramento. *Sacramento City Code*. Updated May 2011.

³ City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

5.12 UTILITIES, SERVICE SYSTEMS, AND ENERGY

5.12

UTILITIES, SERVICE SYSTEMS, AND ENERGY

5.12.0 INTRODUCTION

The Utilities, Service Systems, and Energy chapter of the EIR describes the utility systems and facilities within the project area and the associated potential impacts resulting from the Aspen 1-New Brighton project (proposed project). Utilities and service systems considered in the analysis will include water supply, wastewater treatment and collection, solid waste collection and disposal, electric power, natural gas, and communications systems. The chapter will also discuss thresholds of significance for such impacts, and will develop mitigation measures and monitoring strategies. Consideration will be given to on-site as well as off-site infrastructure facilities.

In addition, the Utilities, Service Systems, and Energy chapter describes the existing energy resources derived from petroleum products, electricity, and natural gas available within the project area and analyzes the impacts related to these resources that would result from the implementation of the proposed project.

This chapter was prepared pursuant to CEQA Sections 211400(b)(3) and 15126.4(a)(1)(c), and is consistent with Appendix G of the CEQA Guidelines. Documents referenced to prepare this chapter include the *Aspen 1 Municipal Service Review*,¹ the *Sacramento 2030 General Plan*,² the *Sacramento 2030 General Plan Master EIR (MEIR)*,³ and the *2010 Urban Water Management Plan (2010 UWMP)*.⁴

5.12.1 EXISTING ENVIRONMENTAL SETTING

The Existing Environmental Setting section describes the existing water and wastewater systems for the City of Sacramento and the project area, as well as solid waste collection and disposal and other public utilities related to the proposed project. In addition, this section describes the existing energy supply and project-related energy consumption.

Water Supply

Supply Sources

The City of Sacramento is the water purveyor for the proposed project. The City relies on both surface water and groundwater for municipal and industrial uses. The City's water supply is obtained from three sources:

- Surface water obtained from the American River;
- Surface water obtained from the Sacramento River; and
- Groundwater.

The City owns and operates two water diversion and treatment facilities; the E.A. Fairbairn Water Treatment Plant (FWTP) and the Sacramento River Water Treatment Plant (SRWTP)

divert water from the American River and Sacramento River, respectively. In 2003, the City finished an expansion of the SRWTP increasing its maximum capacity from 110 million gallons per day (mgd) to 160 mgd. An expansion of the FWTP was finished in May of 2005. The expansion increased the maximum capacity of the FWTP from 100 mgd to 200 mgd.

The City of Sacramento has a Sacramento River permit (Permit 992) to divert up to 225 cubic feet per second (cfs) and 81,800 acre-feet annually (afa) from the Sacramento River. In addition the City has four water right permits authorizing diversions of up to 589,000 afa of American River water. However, the City's American River water rights scale and the maximum diversion for the year 2035 is 245,000 afa. The City's maximum annual diversion allowance is shown in Table 5.12-1.

Table 5.12-1			
Maximum Annual Diversion Allowed per Year			
Year	Sacramento River	American River	Combined Diversion
2010	81,800	170,500	227,500
2015	81,800	189,000	252,000
2020	81,800	208,500	278,000
2025	81,800	228,000	304,000
2030	81,800	245,000	326,800
2035	81,800	245,000	326,800

Notes:

1. Data obtained from Schedule A of the 1957 Water Rights Settlement Contract between the U.S. Bureau of Reclamation and the City.
2. The City may divert up to 81,800 AFY from the Sacramento River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the Maximum Combined Diversion.
3. The City may divert up to the Maximum Diversion from the American River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the Maximum Combined Diversion.

Source: City of Sacramento, 2010 Urban Water Management Plan, October 2011.

The City overlies two sub-basins of the Sacramento Valley Groundwater Basin. According to the 2010 UWMP, the City currently operates the City operates 25 municipal supply wells and 5 irrigation wells north of the American River, and operates two municipal supply wells and 9 irrigation wells south of the American River. Hence, the City pumps groundwater from both sub-basins, although approximately 95 percent of the amount pumped by the City is pumped from the North American sub-basin. The City pumped 17,772 acre-feet (af) of groundwater from the North American sub-basin and 665 af from the South American Sub-basin for potable water consumption in 2010.

In 2010, the City of Sacramento supplied potable water to approximately 136,713 water services in the City of Sacramento water service area. The potable water customers are primarily residential, with approximately 92 percent of the City's customers being residential; approximately seven percent commercial/institutional, and one percent irrigation. In addition to supplying water to domestic retail customers, the City also provides water on a wholesale and wheeling basis to other districts and purveyors.

Storage

The City operates ten storage reservoirs, each with a capacity of three million gallons (mg), except for the Florin Reservoir, which has a capacity of 15 mg. In addition to the reservoirs, the treatment plants together maintain an on-site storage of over 32 mg. This water is used to meet

the water demand for fire flows, emergencies, and peak hours. The amount of storage capacity currently existing in the City is adequate to serve emergency situations, even at full projected buildout of the City.

Water Conservation

Water conservation practices were institutionalized through City ordinances as early as 1967, and have constantly evolved. In 1991, the City became a signatory to the California Urban Water Conservation Council's (CUWCC's) Memorandum of Understanding (MOU). The purpose of the MOU is to expedite implementation of reasonable water conservation measures in urban areas and to establish appropriate assumptions for use in calculating estimates of reliable future water conservation savings.

The City's water conservation program currently includes the following: residential plumbing retrofit; system water audits; leak detection and repair; conservation programs for large landscape, commercial, industrial and institutional accounts; rebate programs for high-efficiency washing machines and ultra low flush toilets; public information and school education programs; a water waste prohibition ordinance; and a water conservation coordinator. Previous passage of Assembly Bill 2572 mandates the installation of water meters on all water service connections not later than the year 2025. All new water connections include water meters.

Water Supply Availability

In 2003, SB 610 and SB 221 were signed into law by then Governor Gray Davis. These laws are intended to coordinate local land use and water supply planning. SB 610 requires each public water system that would supply water to a proposed project determine whether the projected water demand associated with the proposed project could be met when existing and planned future uses are considered. For the purposes of SB 610, Water Code Section 10912 (a)(2) requires all projects with a water demand equivalent to 500 or more dwelling units, or which include over 250,000 square feet of commercial office building, to obtain a Water Supply Assessment (WSA). In addition, SB 610 requires a quantification of water received by the water provider (City of Sacramento) in prior years from water rights, water supply entitlements, and water service contracts.

Availability

According to the 2010 UWMP, the City of Sacramento has long-term surface water entitlements that exceed current demand.

Minimum Supply Available for the Next Three Years

The California Water Code requires that the City estimate the minimum water supply available at the end of the 12, 24, and 36 months, assuming the driest three-year historic supply shortage. The City has three sources of supply, American River, Sacramento River, and groundwater. As previously described, the American River supply is subject to diversion limitations (Conference Years and Hodge Flow). The three-year minimum water supply was assumed to be 1990 through 1992. Table 5.12-2 presents the estimated minimum water supply for the next three years.

Table 5.12-2 Estimated Minimum Water Supply for 2011-2013			
Water Supply Sources	Projected Minimum Water Supply		
	2011	2012	2013
Sacramento River	81,800	81,800	81,800
American River	174,500	178,000	181,500
Groundwater	20,000	20,000	20,000
Total (AFY)	276,300	279,800	283,300

Notes: American River projected minimum water supply based on Fairbairn WTP diversion limitations due to extremely dry year and Hodge Flow conditions. Sacramento River projected minimum water supply based on City's Sacramento River permit.

Source: City of Sacramento, 2010 Urban Water Management Plan, October 2011.

Supplies and Demands for Normal Water Year

The water demands through 2035 are estimated based on the historical daily use criteria, water use targets, and population projections. The projected normal water year supply and demands are summarized in Table 5.12-3. Supply totals represent the City's total surface and groundwater entitlements, while demand totals represent the City's maximum projected demands (including retail, wholesale, and wheeling deliveries).

Table 5.12-3 Supply and Demand Comparison – Average Year (Guidebook Table 32)					
	2015	2020	2025	2030	2035
Supply Totals	290,800	310,300	329,800	346,800	346,800
Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
Difference	118,211	124,512	111,914	96,816	85,816
Difference as Percent of Supply	41%	40%	34%	28%	25%
Difference as Percent of Demand	68%	67%	51%	39%	33%

¹ Includes Retail and Maximum Wholesale/Wheeling Deliveries.

Notes: "Guidebook Table 32" refers to Table 32 in the *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* (Department of Water Resources).

Source: City of Sacramento, 2010 Urban Water Management Plan, October 2011.

Supplies and Demands for a Single-Dry Water Year

The single-dry year minimum water supply was assumed to be 1977. Any demand reductions due to future water conservation measures are not included in the single-dry year demand estimates. The projected single-dry year supply and demands are summarized in Table 5.12-4. Supply totals represent the City's total surface and groundwater entitlements, while demand totals represent the City's maximum projected demands (including retail, wholesale, and wheeling deliveries).

Table 5.12-4 Supply and Demand Comparison – Single-Dry Year (Guidebook Table 33)					
	2015	2020	2025	2030	2035
Supply Totals	290,800	310,300	329,800	346,800	346,800
Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
Difference	118,211	124,512	111,914	96,816	85,816
Difference as Percent of Supply	41%	40%	34%	28%	25%
Difference as Percent of Demand	68%	67%	51%	39%	33%
¹ Includes Retail and Maximum Wholesale/Wheeling Deliveries.					
Notes: "Guidebook Table 32" refers to Table 33 in the <i>Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan</i> (Department of Water Resources).					
Source: <i>City of Sacramento, 2010 Urban Water Management Plan, October 2011.</i>					

The single-dry year assumptions are as follows:

- Sacramento River, 81,800 AFY available.
- American River under extremely dry year, 50,000 AFY available at the FWTP diversion, the remainder of the American River entitlements may be diverted at the SRWTP. The total entitlement varies depending on the buildup schedule in the Settlement Contract. American River entitlements are:
 - Year 2015: 189,000 AFY
 - Year 2020: 208,500 AFY
 - Year 2025: 228,000 AFY
 - Year 2030 and thereafter: 245,000 AFY
- Groundwater: 20,000 AFY available.

As shown in Table 5.12-4, the City's water supply entitlements exceed demand during the single-dry years through 2035.

Supply and Demand for Multiple-Dry Water Year Periods

This section projects the impact of a multiple-dry year period. Any demand reductions due to future water conservation measures are not included in the multiple-dry year demand estimates. Table 5.12-5 provides estimates of the projected multiple-dry year water demand condition. Supply totals represent the City's total surface and groundwater entitlements, while demand totals represent the City's maximum projected demands (including retail, wholesale, and wheeling deliveries). The multiple-dry-year water supply was assumed to be 1990 through 1992.

The multiple-dry year assumptions are as follows:

- First Year
 - Sacramento River, 81,800 AFY available
 - American River, 245,000 AFY available
 - Groundwater, 20,000 AFY available

Table 5.12-5 Supply and Demand Comparison – Multiple-Dry Year (Guidebook Table 34)						
		2015	2020	2025	2030	2035
Multiple-Dry Year First Year Supply	Supply Totals	290,800	310,300	329,800	346,800	346,800
	Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
	Difference	118,211	124,512	111,914	96,816	85,816
	Difference as Percent of Supply	41%	40%	34%	28%	25%
	Difference as Percent of Demand	68%	67%	51%	39%	33%
Multiple-Dry Year Second Year Supply	Supply Totals	290,800	310,300	329,800	346,800	346,800
	Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
	Difference	118,211	124,512	111,914	96,816	85,816
	Difference as Percent of Supply	41%	40%	34%	28%	25%
	Difference as Percent of Demand	68%	67%	51%	39%	33%
Multiple-Dry Year Third Year Supply	Supply Totals	290,800	310,300	329,800	346,800	346,800
	Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
	Difference	118,211	124,512	111,914	96,816	85,816
	Difference as Percent of Supply	41%	40%	34%	28%	25%
	Difference as Percent of Demand	68%	67%	51%	39%	33%
¹ Includes Retail and Maximum Wholesale/Wheeling Deliveries. Notes: "Guidebook Table 32" refers to Table 34 in the <i>Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan</i> (Department of Water Resources). Source: <i>City of Sacramento, 2010 Urban Water Management Plan, October 2011.</i>						

- Second Year
 - Sacramento River, 81,800 AFY available
 - American River, 245,000 AFY available
 - Groundwater, 20,000 AFY available
- Third Year
 - Sacramento River, 81,800 AFY available
 - American River, 245,000 AFY available

- Groundwater, 20,000 AFY available

As shown in Table 5.12-5, the City's water supply entitlements exceed demand during the multiple-dry years through 2035.

Extremely Severe Drought

An extremely severe drought would be an event in excess of the Urban Water Management Plan guidance and would have a very low probability, but perhaps not impossible. For the purposes of the 2010 UWMP, an extremely severe drought is a drought that would prohibit the City from diverting off the American River. This type of drought would result in the City relying on the Sacramento River Water Treatment Plant and groundwater solely, and the combined production capacity of the two would be 180 mgd. The projected maximum day demand for the years 2015 and 2020 are expected to be 259 mgd and 253 mgd, respectively, if the City does not bring on additional wholesale and wheeling customers. Demands would have to be reduced by about 30 percent to safely serve demands.

Drought Planning Summary

In summary, on an annual basis, under all drought conditions the City possesses sufficient water supply entitlements to meet the demands of its customers up to the year 2035. It is important to note that this assumes that wells and surface water treatment capacity will be rehabilitated and expanded as needed.

Water Transmission, Treatment, and Distribution Facilities

The City's Department of Utilities (DOU) is responsible for providing and maintaining water, sewer collection, storm drainage, and flood control services along with solid waste removal for residents and businesses within the City Limits. The Sacramento Area Sewer District (SASD) provides sewer collection services to residents and businesses within the City Limits as well.

The City's existing distribution system consists of two water supply and water treatment plants (WTPs), two pressure zones, groundwater wells, storage tanks, pumping facilities, and distribution/transmission pipelines. Additionally, a separate distribution system serves the automobile dealerships near the Haggan Oaks Golf Complex area.

Surface Water Treatment

The City treats surface water diverted from the Sacramento and American Rivers through the SRWTP and the FWTP, respectively.

Sacramento River Water Treatment Plant

The SRWTP began operation in 1924 with an initial capacity of 32 million gallons per day (mgd), and treats water diverted approximately one-half mile downstream of the American River confluence. A new intake structure, located approximately 700 feet downstream of the old intake structure, was completed in 2003. Other expansions and modifications completed by the City since the 1920's have increased the plant's design capacity to 160 mgd. Currently, due to the conditions of the existing facilities and hydraulic constraints, the SRWTP's reliable capacity is limited to 135 mgd. Design is underway for a project to rehabilitate the older facilities at the

SRWTP to bring the capacity back to 160 mgd. The SRWTP currently has three treatment trains consisting of disinfection, grit removal, coagulation, flocculation, sedimentation, and filtration; all three-process trains are recombined after filtration before post-chlorination.

Fairbairn Water Treatment Plant

The FWTP is located approximately seven miles upstream of the American and Sacramento River confluence. The FWTP began operation in 1964 and has a current design capacity of 200 mgd following the expansion completed in late 2005. Currently, the California Department of Public Health (CDPH) has permitted a capacity of 160 mgd. However, the amount of water diverted is further limited by the Hodge Flow Criteria (minimum flow that would preserve and protect the in-stream resources of the Lower American River). Generally, during the time of peak demand, most often in June, July, or August, the Hodge Flow Criteria could limit the diversion rate at the FWTP to 100 mgd. Treatment consists of disinfection, grit removal, coagulation, flocculation, sedimentation, and filtration. Filtered water is recombined before post-chlorination.

Groundwater Wells

The City currently operates 27 municipal groundwater supply wells; 25 wells are located in the northern portion of the City, north of the American River, while the remaining two are located south of the American River. Fourteen additional wells are operated separately from the drinking water system and are used to meet irrigation demands of City parks. The total pumping capacity of the City's municipal supply wells is approximately 20.7 mgd, assuming 90 percent of the production capacity is available.

Distribution and Storage Facilities

The City's existing distribution system, including storage facilities, is shown in Figure 5.12-1.

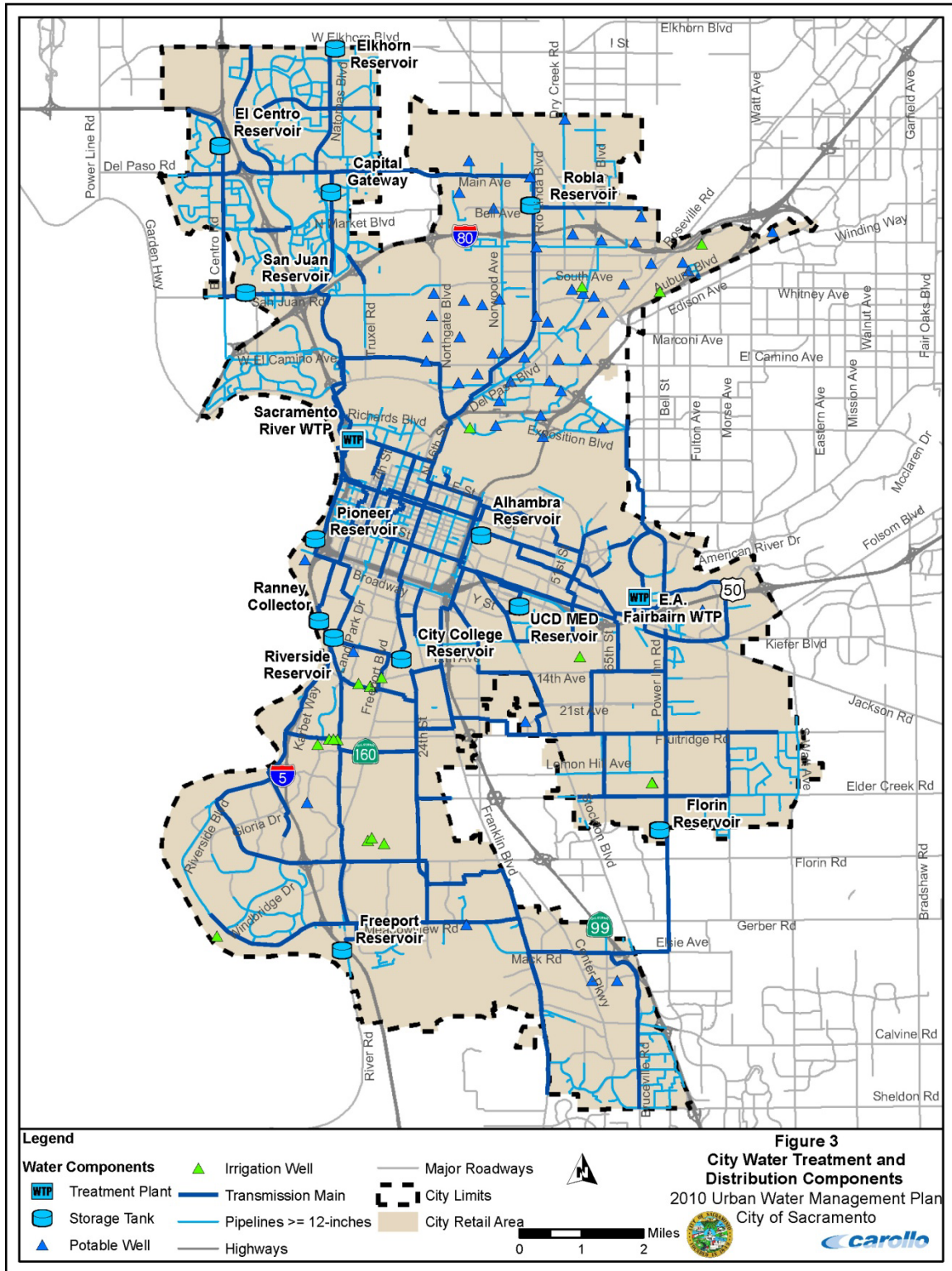
Pressure Zones

High service pumps at each of the WTPs pump water directly into the distribution system creating a pressure zone that encompasses the majority of the City. The Bell Avenue Booster Pump Station is an in-system booster pump station that creates a small pressure zone in the northeastern part of the City.

Storage Facilities

The City currently has 16 storage facilities. Eleven distributed storage tanks are located throughout the City, while five clearwells are located at the WTPs (two at FWTP and three at SRWTP). Ten of the storage tanks located throughout the City have a capacity of 3 million gallons (MG) each, while one storage tank (Florin Reservoir) has a capacity of 15 MG, for a cumulative storage capacity of 45 MG. The combined plant clearwells have a nominal capacity of approximately 45 MG and a usable capacity of 32 MG. Figure 5.12-1 shows the location of the storage tanks throughout the City.

**Figure 5.12-1
 City Water Treatment and Distribution Components**



Pumping Facilities

The City currently operates high lift pump stations at both the SRWTP and the FWTP. The City also has an additional ten pump stations located at each storage tank within the distribution system, except for the Freeport Storage Tank.

Transmission and Distribution Mains

The City maintains just over 1,760 miles of transmission and distribution system mains ranging in size from four to 60 inches in diameter; only 154 miles consists of pipe that are 14 inches in diameter or larger.

City Water Infrastructure

The City operates pumping facilities throughout the City. Water mains are separated by the City into two distinct categories: distribution mains are typically four inches to 12 inches in diameter and utilized for water services, fire services and fire hydrants; transmission mains larger than 12 inches are used to convey large volumes of water from the treatment plants to selected points throughout the distribution system and to transfer water to and from the storage reservoirs to meet fluctuating daily and seasonal demands.

Project Area Water Infrastructure

The project area is served by a system of water mains that provide key connection points that would serve the project site. An existing 24-inch California American Water (Cal-Am Water) water main is located within Folsom Boulevard to the north of the site and an existing 12- to 30-inch water main is located within Fruitridge Road to the south of the site. The water main within Fruitridge Road connects to an eight- to 24-inch water main located within Florin Perkins Road to the west of the site.

Cal-Am Water operates and maintains the public water system in the project area and is currently available to provide service to the project site, but does not have any infrastructure in place to serve the site. Providing water to the site would be challenging for Cal-Am Water, as infrastructure would have to be extended across Jackson Highway or South Watt Avenue. Cal-Am Water is supplied with groundwater from well facilities. The City and Cal-Am Water are in negotiations to provide replacement water due to groundwater contamination issues.

Wastewater Collection and Treatment

Sacramento Area Sewer District

The SASD maintains and provides wastewater collection and conveyance from the local residences and businesses in the urbanized, unincorporated areas of the County, the Cities of Citrus Heights and Elk Grove, portions of the City of Sacramento, and a very small area in the City of Folsom. The service area covers approximately 270 square miles and has a population of over 750,000.

The smaller local pipelines that SASD operates connect to the larger regional interceptor collection facilities maintained by Sacramento Regional County Sanitation District (SRCSD).

SASD's master plan proposes a new sewer trunk line (Gravel West Trunk Shed Project) from north of Jackson Highway along South Watt Avenue to Fruitridge Road. The purpose of the trunk line is to create capacity for future development in the vicinity especially north of the project site. The development of the project would trigger construction of the new sewer trunk line.

Sacramento Regional County Sanitation District

SRCSO provides large pipeline conveyance of wastewater from SASD, the Cities of Citrus Heights, Elk Grove, Folsom and West Sacramento, unincorporated areas of the County, and the City of Sacramento to the wastewater treatment plant. The local interceptors that transport wastewater from the local residences and businesses flow into much larger regional pipelines maintained by SRCSO. SRCSO conveys wastewater through the large regional pipes into the wastewater treatment plant operated and maintained by the District. After wastewater is treated and de-chlorinated, the treated effluent is discharged into the Sacramento River.

SRCSO is currently implementing large-scale improvements to the regional interceptor system to correct existing deficiencies and in anticipation of growth over the next 15 years. Improvements include the construction and extension of several interceptors and force mains.

East of the project site is the Bradshaw Sewer Project, a 17-mile large-diameter sewer pipeline, or interceptor, which will connect to the recently built Folsom Interceptor. The recently constructed 31-mile Bradshaw/Folsom Interceptor will convey wastewater from the northeast area of Sacramento County to the Sacramento Regional Wastewater Treatment Plant near Elk Grove. The interceptor will provide increased sewer capacity for both existing communities and planned growth in the Sacramento area. Figure 5.12-2 shows the planned improvements in the project vicinity.

Sacramento Regional Wastewater Treatment Plant

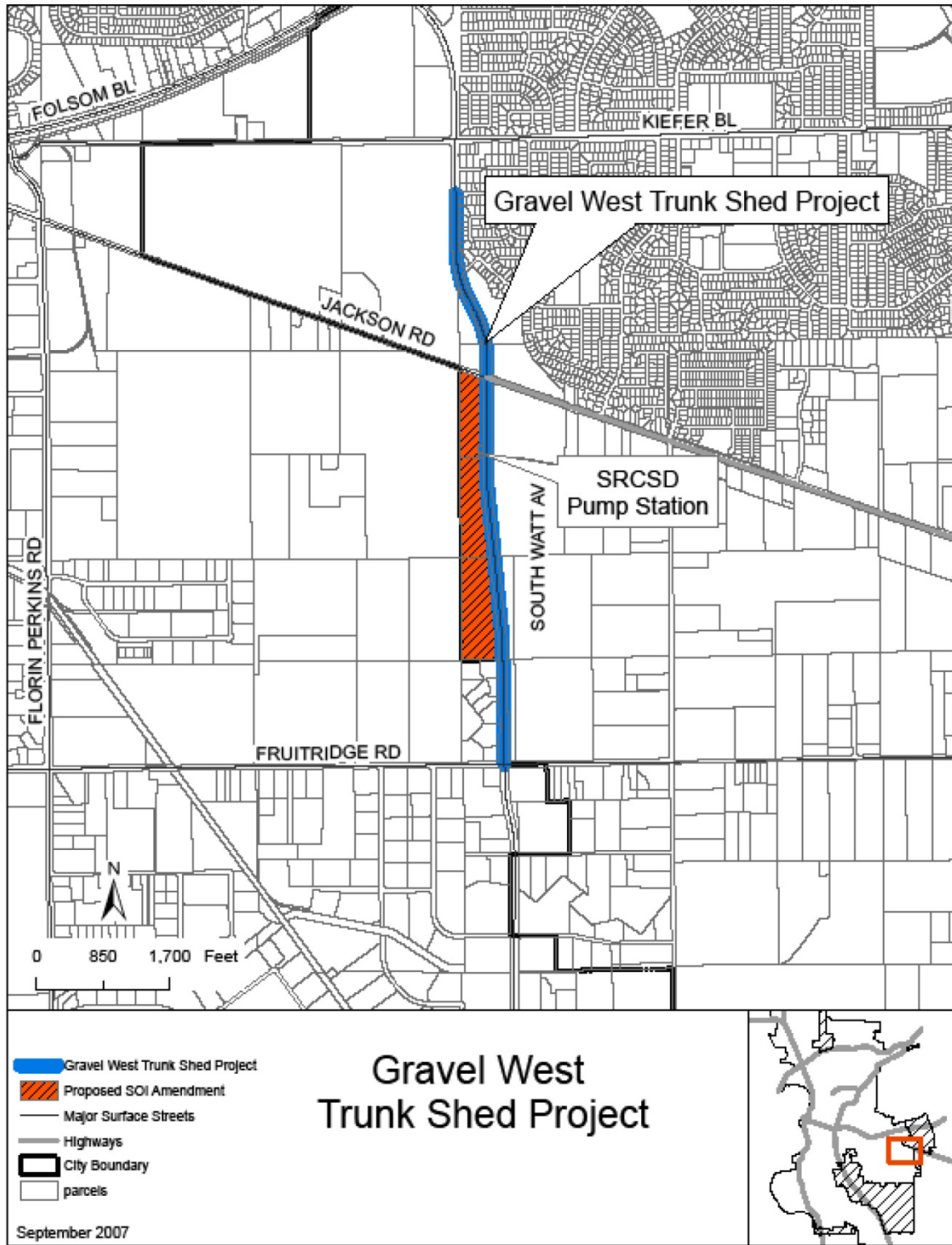
SRCSO is in the process of expanding the Sacramento Regional Wastewater Treatment Plant (SRWWTP) to accommodate 250 mgd of Average Dry Weather Flows (ADWF) and maintaining the 400 mgd for Average Wet Weather Flows (AWWF). The facility's current ADWF is approximately 165 mgd, with a permitted capacity of 181 mgd for ADWF. These expansions are projected to accommodate all projected regional growth through the year 2020.

The discharge permit adopted for the SRWWTP in 2000 contains new, more stringent requirements at both the State and Federal levels that are designed to restrict discharges of toxic pollutants into surface waters. Water recycling is a compliance strategy currently being used by SRCSO. Biosolids recycling technologies may also be implemented. The allowable total maximum daily loads of pollutants discharged into the Sacramento River, as well as elevated temperature of discharges into the Sacramento River, will be monitored.

Solid Waste

The waste stream generated in the City of Sacramento is in excess of 1.13 million tons per year and includes everything from recycling to construction demolition material to garden refuse. The City collects approximately 30 percent of this waste and the remainder is collected by private parties, including franchised haulers and individual residents.

**Figure 5.12-2
Planned Sewer Improvements in the Aspen 1-New Brighton Vicinity**



The annexation area of the proposed project is currently within the service boundaries of the Sacramento County Municipal Services Agency, Department of Waste Management and Recycling, but service is provided by mostly private franchised hauling companies for the commercial and industrial customers. The project site is vacant and not currently receiving service. The City of Sacramento is also a franchised hauler. The private hauling companies are under a franchise agreement with the Sacramento Regional Solid Waste Authority to perform collection and disposal at properties and convey waste to landfills and recycling stations, as appropriate. Upon annexation to the City, solid waste collection and disposal for commercial, industrial, and multi-family residential units within the project area would be serviced by the City of Sacramento Department of Utilities or by private haulers (if existing franchise agreements are in place).

Sacramento Regional Solid Waste Authority

The Sacramento Regional Solid Waste Authority (SWA) was formed in December 1992 to assume the responsibilities for the solid waste, recycling and disposal needs in the Sacramento area. Current members include the City of Sacramento, the City of Citrus Heights and the unincorporated area of Sacramento County. The SWA regulates commercial solid waste collection by franchised haulers through ordinances. The Sacramento County Waste Management and Recycling Division provides staffing for the SWA.

Sacramento County Department of Waste Management and Recycling

The Sacramento County Department of Waste Management & Recycling is responsible for maintaining a waste management system for residents and businesses in the unincorporated area. The Department is part of the Municipal Services Agency and has responsibility for the following services and programs: garbage recycling and collection services, garbage disposal and recycling facilities and recycling programs.

Sacramento County offers the general public, businesses and waste haulers waste disposal, recycling and transfer facilities at Kiefer Landfill and the North Area Recovery Station. Kiefer Landfill is the primary municipal solid waste disposal facility in Sacramento County. It is the only landfill facility in Sacramento County permitted to accept household waste from the public. Waste is accepted from the general public, businesses and private waste haulers. The landfill facility sits on 1,084 acres located near the intersection of Kiefer Boulevard and Grant Line Road. Currently 250 acres, the State permitted landfill is 660 acres in size and will be able serve the regional waste disposal needs in the future. Additionally, the North Area Recovery Station accepts waste from the general public, businesses and private waste haulers.

Sacramento Department of Utilities, Solid Waste Division

The Sacramento Department of Utilities, Solid Waste Division collects all of the single family residential solid waste and a small portion of the commercial solid waste in the City of Sacramento. Most of the refuse collected by the City is then transported to the Sacramento Recycling and Transfer Station and, ultimately, to the Lockwood Landfill in Sparks, Nevada. The Sacramento Recycling and Transfer Station is limited to accepting 2,500 tons of solid waste per day, under its Solid Waste Facilities Permit (Permit No. 34-AA-0195). The transfer station currently accepts approximately 1,700 tons per day from the City. The Lockwood Landfill in Sparks, Nevada is owned and operated by a private firm, Waste Management, Inc. and is the primary location for the disposal of waste by the City. The Lockwood Landfill has permitted

capacity through the year 2045, with a remaining life expectancy currently estimated at 90 years.

The Solid Waste Division also provides curbside recycling, garden refuse pickup, and annual neighborhood cleanup for residential neighborhoods and commercial/industrial recycling. Weekly residential trash routes handle about 4,000 residential units each per vehicle. Every week, recycling routes handle about 6,000 residential units per vehicle, and green waste routes handle about 6,000 residential units per vehicle.

The City, in coordination with BLT Enterprises, is currently proposing to develop a new transfer station designed to handle up to 2,000 tons per day to serve the northern areas of the City. The new transfer station would accommodate growth in the City over the next 20 to 30 years. According to the *Sacramento Recycling and Transfer Station – North Draft EIR* published in January 2007, development of the proposed transfer station would eliminate the need for waste and recycling collection trucks to travel from the City's northern areas to the existing Sacramento Recycling and Transfer Station and to the North Area Recovery Station. The City is also still in the process of negotiating with the County to obtain favorable tipping rates to dispose of waste at the County's Kiefer Landfill.

Various Commercial Franchised Haulers

The remaining two-thirds of commercial solid waste are collected by one of sixteen franchised haulers. The commercial solid waste collected by private franchised haulers are sent to private transfer stations to be processed and disposed at various facilities, including the Sacramento County Kiefer Landfill, Yolo County Landfill, and L and D Landfill. The franchised private haulers are under an agreement with the SWA.

Energy

State of California

Energy Consumption

A majority of consumable energy in California is provided in the form of Electricity and Natural Gas. In addition, various petroleum products are consumed for transportation purposes.

Electricity

Electricity supply in California involves a complex grid of power plants and transmission lines located in the Western United States, Canada, and Mexico. Approximately 22 percent of the California's electricity is imported from the eleven-most western states, Canada, and Mexico.

Based upon data and reports compiled by the California Energy Commission (CEC), in 2008, Californians consumed 285,574 gigawatt hours of electricity, primarily in the commercial, residential, and industrial sectors.⁵ California's 2008 electricity was produced from power plants fueled by natural gas (45.7 percent), coal (16.2 percent), hydro (11.0 percent), nuclear (14.4 percent), and renewables (10.6 percent). The issue is complicated by market forces that have become prominent since 1998, which is when

a new regulatory environment commonly referred to as "deregulation" took effect in California.

Electricity usage in California varies substantially by the type/function of the building, type of construction materials used, and the efficiency of each electrical device within the building. That said - the average annual usage of electricity is roughly 13 kWh/square foot for all commercial buildings. California's massive electricity generation system generates over 290,000 gigawatt hours each year, transported over the State's 32,000 miles of transmission lines. Supply is further complicated by the fact that the peak demand for electricity is significantly higher than the off-peak demand. Electricity use is still expected to increase an average of 1.25 percent annually with peak demand growing at a rate of 1.35 percent per year. The higher peak hour demand for electricity is largely influenced from air conditioning units being used during the daytime in hotter/dry areas of the State.

Since deregulation in 1998, the CEC has licensed more than 60 power plants – 44 projects representing 15,220 MW are on-line, six projects totaling 1,578 MW are under construction, and 12 projects totaling 6,415 MW are on hold but "available" for construction. In addition, the CEC has 30 proposed projects under review (both conventional and renewable) totaling more than 12,000 MW.

Natural Gas

In 2006, California used almost 2,187,330 million cubic feet of natural gas. The natural gas was used to produce electricity (44 percent), in industrial uses (23 percent), in residential uses (22 percent), in commercial uses (10 percent), and in transportation (1 percent). Approximately 13.5 percent of the natural gas was produced within California, with the balance imported from the Rockies, Southwest, and Canada. California's natural gas production in 2006 was approximately 6,032 million cubic feet per day.⁶

Natural gas usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all gas-consuming devices within a building. The average annual usage of natural gas is roughly 45,000 cubic feet/residence and roughly 37 cubic feet/square foot for commercial buildings.

California Energy Supply

California's major sources of energy are petroleum products (i.e., gasoline, diesel and oil), electricity, and natural gas. The CEC indicates that California's petroleum resources come from the following three sources: in-state (37 percent); foreign sources (45 percent); and Alaska (16 percent). In 2006, natural gas resources in California came from the Southwest (40.0 percent), Canada (23.5 percent), in-state (13.5 percent), and the Rocky Mountains (23.0 percent). Electricity production by resource type in California in 2008 included, natural gas at 45.7 percent, coal at 18.2 percent, nuclear at 14.4 percent, hydroelectric at 11.0 percent, and renewable at 10.6 percent. Renewable consisted of geothermal (4.6 percent), biomass (2.1 percent), small hydro (1.4 percent), solar and wind (2.6 percent). Import electricity from the northwest and southwest accounts for approximately 24.2 and 7.8 percent, respectively.

California Energy Use Patterns

Detailed information about energy use in the project area is limited; therefore, State-level and county trends are relied upon to characterize energy consumption at the local level. In 2007, the approximate total consumption of energy within State was 284,509 million kWh. Tables 5.12-6 and 5.12-7 illustrate SMUD/PG&E, Sacramento County, and California electricity and natural gas consumption.

Entity	Residential KWh (millions)	Nonresidential KWh (millions)	Total KWh (millions)
SMUD	4,487	5,806	10,293
Sacramento County	4,513	6,178	10,691
California	88,381	186,611	274,992

Note: Kilowatt-hour (kWh): The most commonly used unit of measure telling the amount of electricity consumed over time, which is one kilowatt (1,000 watts) of electricity supplied for one hour.

Source: California Energy Commission, <http://www.ecdms.energy.ca.gov/elecbycounty.asp#results>, accessed October 2011.

Entity	Residential Therm (millions)	Nonresidential Therm (millions)	Total Therm (millions)
PG&E (2009) ¹	31,536	54,090	85,626
Sacramento County	211	105	316
California	5,097	7,681	12,778

¹ Data not available for 2010.

Source: California Energy Commission, <http://www.ecdms.energy.ca.gov/elecbycounty.asp#results>, accessed October 2011.

City of Sacramento

This section addresses the City of Sacramento’s energy sources, as well as the local efforts to conserve energy and use energy more efficiently. Although these terms are used interchangeably, it is useful to differentiate between energy efficiency and energy conservation. Energy efficiency means using less energy/electricity to perform the same function. Conservation means “doing without” in order to save energy rather than using less energy to do the same thing. For example, turning off lights, turning down the air conditioner, and making fewer vehicle trips are all conservation measures. Installing lighting that uses less electricity, installing additional insulation, and switching to a vehicle with better gas mileage are energy efficiency measures.

PG&E provides natural gas services to the City of Sacramento. PG&E obtains its gas supplies from natural gas fields in northern California. PG&E purchases gas power from a variety of sources, including utility companies in other western states and Mexico (CEC, 2003). To promote the safe and reliable maintenance and operation of utility facilities, the CPUC has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities.

The Sacramento Municipal Utilities District (SMUD) provides electric power for the City of Sacramento. SMUD is the sixth largest publicly-owned utility in the country in terms of customers served. SMUD's energy programs are known throughout the State, nation and world. SMUD gets electricity from a variety of sources, including hydrological dams, cogeneration plants, advanced renewable sources such as wind, solar and biomass/landfill gas power, and obtains additional energy on the wholesale market.

5.12.2 REGULATORY BACKGROUND

The following are regulations pertaining to utilities, service systems, and energy that are implemented on a federal level.

Federal

Water

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) of 1974 gave the United States Environmental Protection Agency (EPA) the authority to set standards for contaminants in drinking water supplies. The EPA was required to establish primary regulations for the control of contaminants that affected public health and secondary regulations for compounds that affect the taste, odor, and aesthetics of drinking water. Under the provisions of SDWA, the California Department of Health Services (DHS) has the primary enforcement responsibility. Title 22 of the California Administrative Code establishes DHS authority, and stipulates State drinking water quality and monitoring standards.

Wastewater

National Pollution Discharge Elimination System Permit

Discharge of treated wastewater to surface water(s) of the United States, including wetlands, require a National Pollutant Discharge Elimination System (NPDES) permit. In California, the Regional Water Quality Control Boards (RWQCB) administer the issuance of these federal permits. Obtaining a NPDES permit requires preparation of detailed information, including characterization of wastewater sources, treatment processes, and effluent quality. Whether or not a permit may be issued, the conditions of a permit are subject to many factors such as basin plan water quality objectives, impaired water body status of the receiving water, historical flow rates of the receiving water, effluent quality and flow, the air quality State Implementation Plan (SIP), the California Toxics Rule (CTR), and established Total Maximum Daily Loading (TMDL) rates for various pollutants. These factors are highly specific to the potential discharge point. Obtaining an NPDES permit is generally considered difficult in inland areas and may not be possible in sensitive areas.

State

Water

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610-10656). The act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually shall prepare and adopt a UWMP. Water suppliers are to prepare a UWMP within a year of becoming an urban water supplier and update the plan at least once every five years. The act also specifies the content that is to be included in an UWMP.

It is the intention of the legislature to permit levels of water management planning commensurate with the number of customers served and the volume of water supplied. The act states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The act also states that the management of urban water demands and the efficient use of water shall be actively pursued to protect both the people of the State and their water resources.

Senate Bill (SB) 610 and Assembly Bill (AB) 901

During the 2001 regular session of the State Legislature, SB 610 and AB 910 – Water Supply Planning, were signed and became effective January 1, 2002. SB 610 amends Public Resources Code Section 21151.9, requiring any EIR, negative declaration, or mitigated negative declaration for a qualifying project to include consultation with affected water supply agencies (previous law applied only to NOPs). SB 610 also amends the following: Water Code 10656 and 10657 to restrict state funding for agencies that fail to submit their Urban Water Management Plan to the Department of Water Resources; and Water Code section 10910 to describe the water supply assessment that must be undertaken for projects referred under PRC Section 21151.9, including an analysis of groundwater supplies. Water agencies would be given 90 days from the start of consultation in which to provide a water supply assessment to the CEQA lead agency; Water Code Section 10910 would also specify the circumstances under which a project for which a water supply assessment was once prepared would be required to obtain another assessment. AB 910 amends Water Code Section 10631, expanding the contents of the Urban Water Management Plans to include further information on future water supply projects and programs and groundwater supplies. The City Council adopted the UWMP in November 2006. Subsequently, the City submitted a UWMP in 2006 which was accepted by the State Department of Water Resources. The 2010 UWMP, within which the project site was included, was used for this analysis.

Assembly Bill 2572

AB 2572 took effect January 1, 2005 and supersedes the City charter. The law requires the installation and use of water meters by 2025 across the state, including in the City of Sacramento. The water meter retrofit program affects about 120,000 City of Sacramento residential customers.

Solid Waste

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation (i.e. recycling) and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000. The City currently diverts 52 percent of all solid waste from landfill facilities. Solid waste plans are required to explain how each city's AB 939 plan will be integrated with the respective county plan. They must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to \$10,000 per day fines. As a result, each community in the County has developed a number of recycling programs for residents and businesses.

Energy

California Energy Commission (CEC)

The CEC is the State's primary energy policy and planning agency. Created by the Legislature in 1974, the Commission has five major responsibilities: forecasting future energy needs and keeping historical energy data; licensing thermal power plants 50 megawatts or larger; promoting energy efficiency through appliance and building standards; developing energy technologies and supporting renewable energy; and planning for and directing state response to energy emergency. With the signing of the Electric Industry Deregulation Law in 1998 (Assembly Bill 1890), the Commission's role includes overseeing funding programs that support public interest energy research; advance energy science and technology through research, development and demonstration; and provide market support to existing, new and emerging renewable technologies.⁷

California Public Utilities Commission (CPUC)

The CPUC regulates privately owned electric, telecommunications, natural gas, water and transportation companies, in addition to household goods movers and rail safety. The CPUC is responsible for ensuring that customers have safe, reliable utility service at reasonable rates, protecting against fraud, and promoting the health of California's economy.⁸

California's Energy Efficiency Standards for Residential and Non-Residential Buildings (Title 24 Building Standards)

The California Energy Commission administers Title 24 Building Standards, which were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The Energy Commission adopted the 2008 Standards on April 23, 2008, and the Building Standards Commission approved them for publication on September 11, 2008.

Local

Water

City of Sacramento Water Forum Purveyor Specific Agreement

The City's surface water diversions at the Fairbairn Water Treatment Plant (FWTP) are subject to limitations specified in the City's Water Forum Purveyor Specific Agreement (WFPSA). Under this agreement, in extremely dry years the City would limit its diversion of City water at the FWTP to not greater than 155 cubic feet per second (CFS) and not greater than 50,000 acre-feet annually (AFA). In all other years, the City may divert water from the river at the FWTP up to the full capacity of the expanded FWTP (310 cfs), so long as the flow in the river, bypassing the diversion at the FWTP, is greater than Hodge Flows, the minimum flows necessary to preserve and protect the in-stream resources. When flow bypassing the diversion at the FWTP is less than Hodge Flows, City diversion may not be greater than 120 cfs (77 mgd) January through May, 155 cfs (100 mgd) June through August, 120 cfs in September, and 100 cfs (65 mgd) October through December. The City's WFPSA also includes provisions regarding potential future revision of these limitations if it can be determined that doing so would not adversely impact in-stream resources.

City of Sacramento Design Standards

Section 13 of the City's Design Standards sets forth requirements regarding the design and operation of water distribution facilities. Those requirements include standards for pipe design, fire hydrants, and specific requirements for residential, commercial, and industrial water service.

City of Sacramento Urban Water Management Plan

The City developed and adopted a UWMP in November 2006 to ensure the conservation and efficient use of available water supplies and to ensure an appropriate level of reliability in its water service sufficient to meet the needs of its customers. The City adopted an updated UWMP in 2010 based on their recently adopted General Plan. The State Department of Water Resources approved the City's 2010 UWMP in December 2011. The 2010 UWMP was used for this analysis.

Solid Waste

Sacramento Regional Solid Waste Authority

The Sacramento Regional Solid Waste Authority (SWA) is a joint powers authority of the County and the cities of Sacramento and Citrus Heights. The SWA Board of Directors consists of elected officials from the County and the member cities. The SWA regulates commercial solid waste collection by franchised haulers through SWA ordinances. Among other things, SWA ordinances require franchised haulers to achieve 30% recycling and to offer recycling programs to multi-family complexes.

Sacramento 2030 General Plan

The following goals and policies from the *Sacramento 2030 General Plan* are applicable to utilities and service systems.

Utilities: Citywide Utilities

GOAL U1.1 High-Quality Infrastructure and Services. Provide and maintain efficient, high quality public infrastructure facilities and services throughout the city.

Policy U1.1.5 Timing of Urban Expansion. The City shall assure that new public facilities and services are phased in conjunction with the approved urban development it is intended to service.

Policy 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.

Utilities: Water Systems

GOAL U2.1 High-Quality and Reliable Water Supply. Provide water supply facilities to meet future growth within the City's Place of Use and assure a high-quality and reliable supply of water to existing and future residents.

Policy U2.1.8 New Development. The City shall ensure that water supply capacity is in place prior to granting building permits for new development.

Policy U2.1.10 Landscaping. The City shall continue to require the use of water-efficient landscaping in all new development.

Utilities: Wastewater Systems

GOAL U3.1 Adequate and Reliable Sewer and Wastewater Facilities. Provide adequate and reliable sewer and wastewater facilities that collect, treat, and safely dispose of wastewater.

Policy U3.1.2 New Developing Areas. The City shall ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future.

Utilities: Solid Waste

GOAL U5.1 Solid Waste Facilities. Provide adequate solid waste facilities, meet or exceed State law requirements, and utilize innovative strategies for economic and efficient collection, transfer, recycling, storage, and disposal of refuse.

- Policy U5.1.7 Diversion of Waste. The City shall encourage recycling, composting, and waste separation to reduce the volume and toxicity of solid wastes sent to landfill facilities.

Utilities: Energy Resources

Goal U6.1 Adequate Level of Service. Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

Policy U6.1.5 Energy Consumption per Capita. The City shall encourage residents and businesses to consume 25 percent less energy by 2030 compared to the baseline year of 2005.

Policy U6.1.7 Solar Access. The City shall ensure, to the extent feasible, that sites, subdivisions, landscaping, and buildings are configured and designed to maximize solar access.

Policy U 6.1.8 Other Energy Generation Systems. The City shall promote the use of locally shared solar, wind, and other energy generation systems as part of new planned developments.

5.12.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed project would have significant impacts related to utilities, service systems, or energy if the project would result in any of the following:

- 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.

Method of Analysis

This chapter evaluates the project impacts on the existing utilities and service systems. The *Aspen 1 Municipal Service Review*, which was prepared for the proposed project in 2009 in order to evaluate the project's potential effects on existing utilities and service systems, was consulted for preparation of this analysis.

Project-Specific Impacts and Mitigation Measures

5.12-1 Impacts related to increased demand for water supply, treatment, and/or conveyance.

The proposed project site is not currently in use; therefore, Implementation of the proposed project is expected to result in an increased demand for water supply, treatment, and conveyance. However, it should be noted that development of the project

site with the uses included in the project, and the associated increase in demand, was previously analyzed in the General Plan MEIR.

Water Supply

The proposed project site was included in the analysis of supply and demand within the 2010 UWMP. As discussed in the Existing Environmental Setting section, above, the City's water supply entitlements exceed demand during the multiple-dry years through 2035.

Cal-Am Water is designated as the current water service provider for the annexation portion of the proposed project site; however, it should be noted that, pursuant to correspondence received in 2012 from Cal-Am Water,⁹ the company does not currently have facilities installed that could provide water service to this portion of the site and the company does not have plans to extend facilities to the area. In addition, the annexation portion of the project site is the only area within Cal-Am Water's service area that is both south of Jackson Highway and west of South Watt Avenue. Within this correspondence, Cal-Am Water indicated that the company does not have any objection to the City of Sacramento providing service to this portion of the site. Further, Cal-Am Water proposed that the City and Teichert seek and obtain the concurrence of Sacramento County LAFCo so that the City may properly serve the annexation portion of the site.

The remainder of the project site is already served by the City. Thus, although the Sphere of Influence amendment that was approved for the area does not result in a change of water purveyor to the site, the proposed annexation would change the water purveyor for the annexation portion of the proposed project site from Cal-Am Water to the City.

Upon annexation of the project site, the City of Sacramento water supply, treatment, and delivery system can be extended to provide service to the site without creating a negative impact to the project or the existing level of City-wide service. The City is the appropriate water service provider for the project area. However, future extension of water distribution infrastructure to the project site would be necessary. This extension would require the construction of infrastructure both on and off the proposed project site and would need to be funded by the project applicant.

Water Treatment Facilities

The current reliable production capacity of the FWTP and the SRWTP, along with groundwater, is 250 mgd. After improvements are constructed at the Sacramento River Water Treatment Plant and Groundwater wells, the capacity would increase to 280 mgd. The City's highest maximum day demand was 229 mgd, which occurred in 2006. Coupled with the City's obligation to provide a firm supply of 18 mgd to wholesale customers, the potential maximum day demand is 247 mgd. Maximum day demands have diminished substantially since 2006. Sufficient capacity exists to serve the proposed project and the proposed project would be required to pay applicable connection fees for the upkeep and expansion of treatment facilities. Implementation of the proposed project would not result in adverse impacts to water treatment facilities.

Project Site Water Infrastructure and Conveyance

The Preliminary Off-Site Water Plan for the project indicates that three options exist for connecting the project to the City's water supply (See Figure 5.12-3). Option #1 entails either construction of a new 24-inch water main within Florin Perkins Road, which would then connect to a 12-inch water main that would then connect in the southwestern portion of the project site, or construction of a 12-inch water main that would connect to the existing 12-inch water main located within Fruitridge Road.

Option #2 entails construction of a new 12- to 24-inch water main within South Watt Avenue and Kiefer Boulevard, which are to the east and north of the site, respectively. Option #3 entails construction of a 12- to 24-inch water main within Jackson Highway, which runs along the eastern and northern boundaries of the project site. The typical grid pattern would be used to ensure adequate flow to all portions of the project for both domestic use and fire protection.

The typical grid pattern would be used to ensure adequate flow to all portions of the project for both domestic use and fire protection. In addition, the City's policy is to require new commercial areas to install 12-inch mains in order to maintain fire flow capacity. The City determines placement of new water distribution facilities as development plans are formulated. According to the utility plan for the proposed project, water mains of various sizes (12 to 24 inches) could potentially be installed to the north, south, east, and/or west of the project site. It should be noted that through the City's approval process, the project applicant would be required to provide proof that adequate fire flow exists to serve the project site.

It should also be noted that the physical environmental impacts related to construction of on- and off-site water infrastructure have been addressed in the other technical chapters of this Draft EIR (Chapter 5.2, Biological Resources, Chapter 5.3, Cultural Resources, Chapter 5.5, Hazards and Hazardous Materials, etc.), and mitigation is required for any impacts that result from implementation of the project.

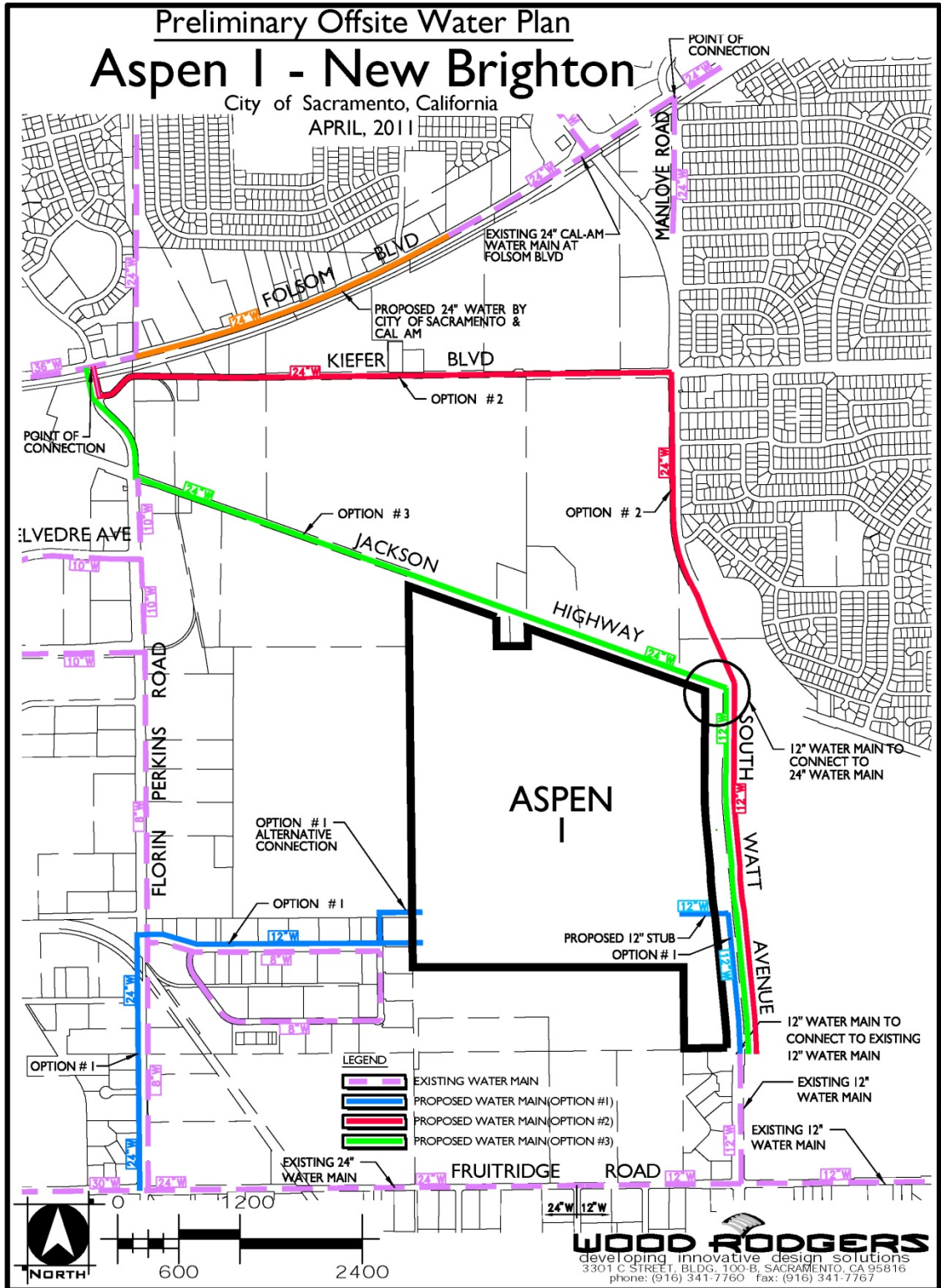
Conclusion

As discussed above, the proposed project would not result in water demand that would exceed the City's available water supply. In addition, adequate water treatment facilities exist to serve the proposed project site. Furthermore, the project applicant would be required to provide adequate fire flow to serve the project site. The project would not result in inadequate capacity to serve the project's water demands in addition to existing commitments; therefore, the project would have a **less than significant** impact related to increased demand for water supply, treatment, and/or conveyance. Consequently, the project would not create water supply, treatment, and/or conveyance impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Figure 5.12-3
 Preliminary Off-Site Water Plan



5.12-2 Increased demand for wastewater collection and treatment.

Sewer service is not provided to the proposed project site, which is currently undeveloped. The project's Preliminary Off-Site Sewer Plan indicates that the project would require construction of the following infrastructure in order for SRCSD and SASD to serve the project site: a 15-inch sewer main within South Watt Avenue that would connect to the project site; a 10-inch force main that would connect via an existing 12-inch stub to the SRCSD central interceptor within Fruitridge Road; and an SASD sewer lift station (See Figure 5.12-4).

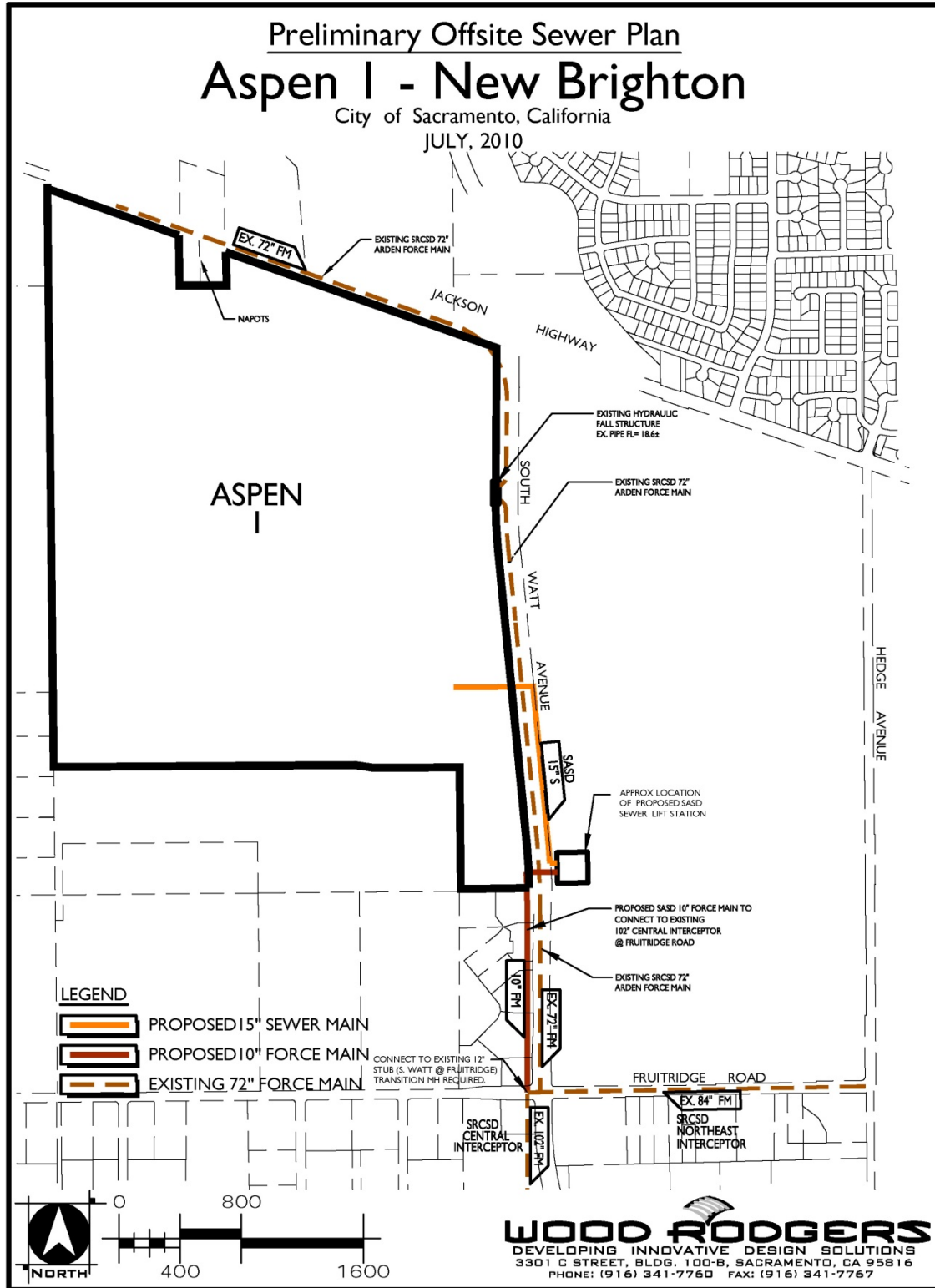
According to the *Aspen 1 Municipal Service Review*, the SASD and the SRCSD are the wastewater service providers and appropriate service providers for future service demands in the project area. An existing SRCSD pump station for the sewer line in South Watt Avenue is located in the vicinity of the proposed project site. However, as discussed above, additional infrastructure would be required in order to connect the project site to existing sewer lines and SRCSD and SASD services.

According to the project's Preliminary Off-Site Sewer Plan, the proposed project would require construction of the following infrastructure in order for SRCSD and SASD to provide adequate sewer services to the project site: a 15-inch sewer main within South Watt Avenue that would connect to the project site; a 10-inch force main that would connect via an existing 12-inch stub to the SRCSD central interceptor within Fruitridge Road; and an SASD sewer lift station. It should be noted that the physical environmental impacts related to construction of on- and off-site water infrastructure have been addressed in the other technical chapters of this Draft EIR (Chapter 5.2, Biological Resources, Chapter 5.3, Cultural Resources, Chapter 5.5, Hazards and Hazardous Materials, etc.), and mitigation is required for any impacts that result from implementation of the project.

The SASD and SRCSD have identified a potential relief and expansion project which includes new sewer trunk lines, new interceptors and force mains, and extension of existing sewer infrastructure. The improvements are intended to create capacity for both existing and future development in the Sacramento area, including within the vicinity of the proposed project. Furthermore, the SRCSD is in the process of expanding the SRWWTP to accommodate 250 mgd of Average Dry Weather Flows (ADWF) and maintaining the 400 mgd for Average Wet Weather Flows (AWWF). The expansion is anticipated to accommodate all projected regional growth through the year 2020. The SRWWTP's current ADWF is approximately 165 mgd, with a permitted capacity of 181 mgd for ADWF and a daily peak wet weather flow of 392 mgd. Thus, the SRWWTP currently has an excess capacity of 16 mgd for ADWF, which is expected to increase upon completion of the SRWWTP expansion.

The proposed project is anticipated to generate approximately 356,190 gallons per day (gpd), which equates to 0.36 mgd (See Table 5.12-8). As the SRWWTP currently has an excess capacity of 16 mgd, which is expected to increase upon completion of the SRWWTP expansion, adequate capacity is currently available and is expected to remain available in the future to serve the proposed project. In addition, the General Plan EIR determined that the planned expansion of the SRWWTP would be able to accommodate the projected service area demand, including the City of Sacramento and the proposed project, through the 2020 Master Plan timeframe.

Figure 5.12-4
 Preliminary Off-Site Sewer Plan



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**Table 5.12-8
 Wastewater Generation**

Land Use (Design ESD Land Use Code) ¹	Net Acres ²	ESDs Per Acre ³	ESD (1 ESD=310 gpd) ⁴	Wastewater (gpd)
Low Density Residential (LDR1)	59.1	6	354.6	109,926
High Density Residential (HDR)	15.1	30	453	140,430
Residential Mixed Use (MIXED)	13.5	6	81	25,110
Commercial (COM)	10.8	6	64.8	20,088
Urban Farm (AG)	23.8	6	142.8	44,268
Elementary School (PQP)	8.8	6	52.8	16,368
Parks and Open Space/Medians (OPEN)	43	0	0	0
Total				356,190 gpd

¹ Land Use Code for the design ESD utilized.
² Net acres excludes public streets, alleys, slopes, and landscape easements.
³ Design ESD densities from the CSD-1 Sewerage Facilities Master Plan Update 2006.
⁴ Equivalent Single-Family Dwelling (ESD) is a parameter used to equate expected sewage discharge. Sewage discharger per ESD from CSD-1 Ordinance NO. SD1-0061.

Source: Sacramento Area Sewer District, CSD-1 Sewerage Facilities Master Plan Update, 2006.

Therefore, the current service providers would be capable of providing adequate wastewater services to the proposed project without adverse impacts to current service levels. Therefore, the project's impact related to an increased demand for wastewater services would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
 None required.

5.12-3 Increased demand for solid waste disposal services.

The proposed project would contribute to the increase in demand for solid waste hauling and disposal services in the area. Waste hauling and disposal services would be provided by the City and private franchised haulers. The City, a franchised hauler of the Sacramento Regional SWA, collects all of the single-family residential waste and approximately one-third of the commercial waste within the City. Private franchised haulers collect the remaining commercial waste.

A number of landfills that operate in the Sacramento region, as well as landfills outside the region, serve Sacramento's solid waste needs. As noted in the existing setting information for solid waste, the City generates over 1.13 million tons of refuse per year, a large portion of which is sent to Lockwood Landfill.

The Lockwood Landfill, a Class I landfill with a total capacity of approximately 64.8 million compacted cubic yards (43.7 million compacted tons), currently receives approximately 2,200 tons of solid waste per day, including waste from the City of Sacramento.¹⁰ The Lockwood Landfill does not have maximum daily disposal limits and has a remaining capacity of approximately 32.5 million tons, which is currently expected to be enough capacity to remain open until the year 2035. In addition, the Lockwood Landfill is planned for an expansion that would increase the landfill's capacity enough to continue operation for at least the next 100 years in order to accommodate planned future growth.

In addition to the Lockwood Landfill, the City utilizes the Kiefer Landfill for solid waste disposal needs. The Kiefer Landfill is the primary municipal solid waste disposal facility in Sacramento County and the only landfill facility in Sacramento County permitted to accept household waste from the public. Categorized as a Class III facility, the Kiefer Landfill accepts waste from the general public, businesses, and private waste haulers. As of the year 2000, the Kiefer Landfill had a remaining capacity of 86,163,462 cubic yards (73 percent). The permitted capacity for the landfill is 117 million cubic yards (10,815 tons/day) and the estimated closure date for the landfill is 2064. Furthermore, the City is currently proposing to develop a new transfer station designed to handle up to 2,000 tons of solid waste per day to serve the northern areas of the City. The new transfer station would accommodate growth in the City over the next 20 to 30 years.

The General Plan MEIR states that with the remaining capacity and expected lifespan at the Lockwood and Kiefer Landfills, combined with the continued use of the existing transfer stations and development of at least one new transfer station in the north area, the increase in solid waste generated by development under the General Plan would not exceed capacity of the landfills. The General Plan includes Policies U.5.1.11 to U.5.1.17 which provides long-term objectives for minimizing the city's contribution to solid waste by providing additional encouragement and education regarding recycling and development of new techniques for solid waste disposal. In addition, AB 939 mandates the reduction of solid waste disposal in landfills and the City is currently achieving a 62 percent diversion rate (based on 2006 data) which is anticipated only to increase with continued awareness of the importance of recycling. Thus, implementation of the Solid Waste Authority and Sacramento recycling requirements would only continue to significantly reduce potential impacts on landfill capacity. In addition, according to the *Aspen 1 Municipal Service Review*, adequate infrastructure exists for buildout of the General Plan.

According to the General Plan MEIR, the existence of significant capacity at the City's primary landfills, the exporting of solid waste, and aggressive recycling would ensure that the City's contribution of solid waste could be accommodated at buildout of the 2030 General Plan. Because the proposed project is consistent with development anticipated for the site in the General Plan, adequate landfill capacity and solid waste services would be available for the proposed project as well. Therefore, because sufficient capacity is available to serve the proposed project, the project's impact related to increased demand for solid waste services would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
None required.

5.12-4 Impacts related to wasteful, inefficient, or unnecessary consumption of energy.

Although the proposed project would result in the increased consumption of energy, several aspects of the project would help manage the amount and efficiency of energy consumption and would ensure that the related consumption is not inefficient, wasteful or unnecessary or place a significant demand on regional energy supplies. It should be noted that the energy consumption of the proposed project has already been accounted for in the MEIR analysis. While the proposed project would increase energy consumption in the area, the project would not result in an increase beyond what has already been considered in the MEIR for the project site.

In addition, the proposed project would incorporate design features and mitigation measures to reduce the project's energy usage. The Special Planning District (SPD) that would be approved in conjunction with the proposed project includes a requirement that the project be consistent with the Planned Unit Development (PUD) Guidelines that were prepared for the project, which includes project design features that would result in energy reductions. According to the PUD Guidelines, the area has been designed to demonstrate sustainable design practices through a variety of measures including energy efficient design, urban forests, and Low Impact Development, which are intended to reduce the overall footprint of the community. Design features that would reduce energy consumption include encouraging energy efficient landscaping techniques by using local materials, on-site composting, and chipping to reduce green waste hauling. In addition, lighting for the proposed project would be generated by efficient light sources to save energy and minimize operating costs.

In addition, Mitigation Measure 5.1-5 in the Air Quality and Climate Change chapter of this Draft EIR requires implementation of the *Air Quality Mitigation Plan (AQMP) for the Aspen 1-New Brighton Project* (See Appendix B of Appendix F of this Draft EIR). The AQMP includes design features that would result in a reduction in the project's energy usage. Features include the following: the installation of Energy Star-rated roofs; exceedance of Title 24 by 20 percent; and the provision of shade and/or use of light-colored/high albedo materials for at least 30 percent of the site's non-roof impervious surfaces. Projects are required to at least meet the California Building Standards Code's Title 24 requirements, which are intended to encourage energy efficiency. According to the Greenhouse Gas Emissions and Mitigation Plan prepared for the proposed project (See Appendix C of Appendix F of this Draft EIR), implementation of the energy efficient design features of the AQMP would further reduce the project's electricity usage by two percent, in addition to the 20 percent reduction in energy above Title 24 requirements.

Pursuant to the California Building Standards Code, the City's Building Department would review the design components of the project's energy efficiency and conservation measures when the project's building plans are submitted. If deemed necessary by the City, additional energy conservation measures could be applied, such as the following: insulation; the use of energy-efficient heating, ventilation, and air conditioning equipment (HVAC); the reclamation of heat rejection from refrigeration equipment to generate hot water; the incorporation of skylights; etc.

By incorporating design features and mitigation measures to reduce energy usage, and with the City's Building Department's approval of the project's design, the proposed project would avoid wasteful, inefficient, or unnecessary consumption of energy. Therefore, the proposed project would be expected to have a **less than significant** impact regarding the wasteful, inefficient, or unnecessary consumption of energy, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

5.12-5 Impacts related to increased demand on electric and natural gas infrastructure.

According to the *Aspen 1 Municipal Service Review*, Pacific Gas and Electric (PG&E) is currently providing natural gas service to customers surrounding the project area. PG&E has reviewed the proposed Sphere of Influence amendment that would be associated with the project and have indicated that they are able to provide natural gas to the project area and adequate capacity exists to serve future development. Furthermore, any future development could tie into existing facilities and additional off-site extensions would not be necessary.

The Sacramento Municipal Utility District (SMUD) has also reviewed the proposed project and has indicated that they are able to provide electricity for the undeveloped project area and adequate capacity exists to serve future development. Electrical infrastructure is already in place serving surrounding the project area and the project would tie into existing overhead and underground facilities. Additional off-site extensions would not be necessary.

Because PG&E and SMUD are currently providing natural gas and electricity to the project area and are able to adequately serve any future growth and because sufficient infrastructure is in place to accommodate future development within the entire project area, impacts related to increased demand on electric and natural gas infrastructure would be **less than significant**. As a result, the project would not create impacts related to electric and natural gas infrastructure outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

5.12-6 Long-term impacts to utilities and service systems from the proposed project in combination with existing and future developments in the Sacramento area.

Implementation of the proposed project would contribute to an increased demand for public services and utilities in the City of Sacramento. However, as determined in the impact discussions and analyses above, all project-level impacts would be less than significant. Although the proposed project's increase in demands would contribute toward a cumulatively considerable impact, the proposed project is considered to be consistent with the development assumptions already analyzed as part of the General

Plan; therefore, the project alone would not cause a cumulatively considerable increase in impacts to utilities and service systems beyond what was already considered in the General Plan MEIR. Therefore, the project would not be expected to cause an increase in impacts to public services and utilities outside of those anticipated within the General Plan MEIR, and the proposed project's cumulative impact would be considered **less than significant**.

Mitigation Measure(s)

None required.

Endnotes

¹ City of Sacramento. *Aspen 1 Municipal Service Review*. March 2009.

² City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

³ City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

⁴ City of Sacramento. *2010 Urban Water Management Plan*. October 2011.

⁵ California Energy Commission. *2009 Integrated Energy Policy Report*, Final Commission Report. December 2009.

⁶ California Energy Almanac. Available at: http://www.energyalmanac.ca.gov/naturalgas/production_by_source.html. Accessed October 2011.

⁷ California Energy Commission. Available at: <http://www.energy.ca.gov/commission/index.html>. Accessed October 2011.

⁸ California Public Utilities Commission. Available at: <http://www.cpuc.ca.gov/static/aboutcpuc/pucmission.htm>. Accessed October 2011.

⁹ California-American Water. Letter re: California American Water Adjustment of Service Territory - Aspen 1. February 10, 2012.

¹⁰ Nevada Division of Environmental Protection, Bureau of Waste Management. Lockwood Regional Landfill. Available at: http://ndep.nv.gov/bwm/landfill_lockwood.htm. Accessed October 2011.

6. REORGANIZATION

6

REORGANIZATION

6.0 INTRODUCTION

The Reorganization chapter of the EIR summarizes setting information and identifies potential impacts related to reorganization of the Aspen 1-New Brighton project (proposed project) site. Reorganization of the proposed project site consists of annexation of the unincorporated portion of the project area to the City of Sacramento and detachment from the Sacramento Metropolitan Fire District and the Cordova Recreation and Park District, and removal from California-American Water Company (Cal-Am Water) service territory. Documents referenced to prepare this chapter include the Sacramento Local Agency Formation Commission (LAFCo) *Policy, Standards and Procedures Manual*, the Sacramento Area Council of Government (SACOG) *Blueprint Transportation Plan*, the SACOG *Metropolitan Transportation Plan for 2035*, the *Sacramento County General Plan*, the *Sacramento County General Plan EIR*, the *Sacramento 2030 General Plan (GP)*,¹ the *Sacramento 2030 General Plan Draft Master EIR (MEIR)*,² and information from local service providers. Information from the following chapters of this Draft EIR has been summarized for use in this chapter: Chapter 4, Land Use, Population, and Housing; Chapter 5.8, Parks and Recreation; Chapter 5.9, Public Services; and Chapter 5.12, Utilities, Service Systems, and Energy. For more detailed discussions and analysis of impacts, please see the respective chapters of this Draft EIR.

6.1 EXISTING ENVIRONMENTAL SETTING

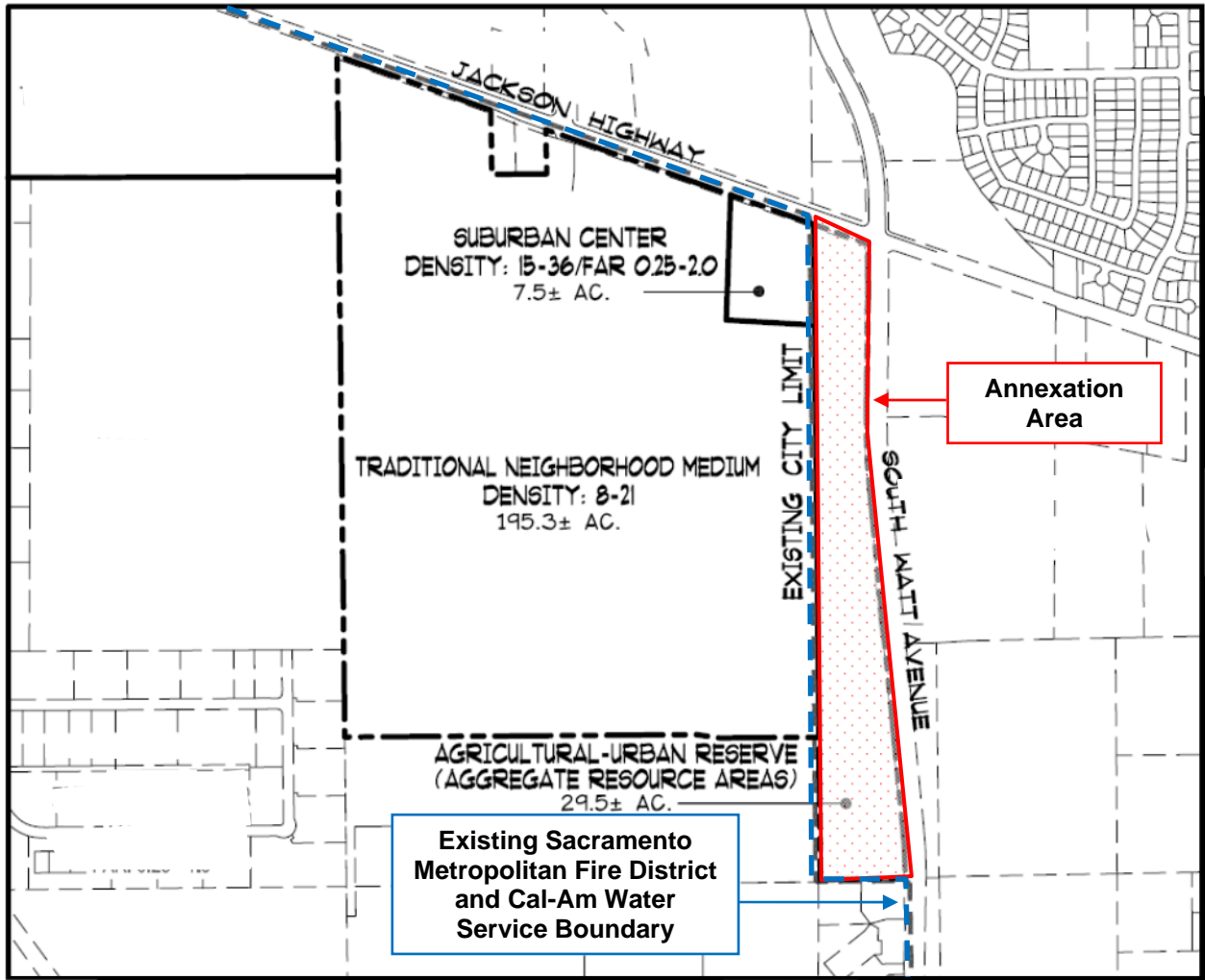
Background

The project would require the LAFCo approval of reorganization of 29.5 acres of the overall approximately 232-acre project site (See Figure 6-1). It should be noted that the affected territory is completely within the City of Sacramento's Sphere of Influence (SOI). Reorganization would consist of detachment of 29.5 acres from the Sacramento Metropolitan Fire District and the Cordova Recreation and Park District and annexation of the 29.5 acres to the City of Sacramento. In addition, a modification of the service boundaries of Cal-Am Water would be required, for which the California Public Utilities Commission (PUC) would be the reviewing entity. Upon annexation, the site would be served by the City of Sacramento, as the City is a full-service City. As such, conditions of approval of the reorganization would be business points discussed among the PUC, the City of Sacramento, and Cal-Am Water, which would then be recommended to LAFCo by the PUC.

Affordable Housing

The proposed project site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins plant. Mining on the project site was completed in the late 1990s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins plant, and an electrical transmission line that transects the site in a northwesterly direction. As such, affordable housing does not exist on the project site.

Figure 6-1
Annexation Area



It should be noted that the annexation portion of the site was not included as part of the Regional Housing Needs Assessment (RHNA) for Sacramento County because the site is currently zoned Heavy Industrial (M-2[SM]) and Industrial Reserve Surface Mining Combining Zone.

Disadvantaged Unincorporated Communities

In 2011, Senate Bill (SB) 244 was enacted, resulting in the following changes to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Cortese-Knox-Hertzberg Act): LAFcos are now required to deny any application to annex to a city territory that is contiguous to a disadvantaged unincorporated community unless a second application is submitted to annex the disadvantaged community as well and LAFcos are required to evaluate disadvantaged unincorporated communities in a municipal service review (MSR) upon the next update of an SOI after June 30, 2012. SB 244 defines “disadvantaged unincorporated community” as any area with 12 or more registered voters where the median household income is less than 80 percent of the statewide annual median. SB 244 also requires LAFcos to consider disadvantaged unincorporated communities when developing SOIs. Upon the next update of an SOI on or after July 1, 2012, SB 244 requires LAFco to include in a Municipal Service Review (MSR) the location and characteristics of any disadvantaged unincorporated communities within or contiguous to the SOI and the present and planned capacity of public facilities, adequacy of public services and infrastructure needs or deficiencies in any disadvantaged unincorporated community within or contiguous to the SOI.

The proposed project site (including the 29.5-acre annexation portion) is not located contiguous to any disadvantaged unincorporated communities; therefore, the project would not result in any impacts to said communities and disadvantaged unincorporated communities will not be addressed further.

Fire Protection

All fire and emergency service providers in the County of Sacramento have developed a Joint Powers Authority (JPA) in favor of a unified service area dispatch system. Under the JPA agreement, all emergency calls are routed through a central dispatch center. Therefore, the closest staffed station to the emergency call location would provide services to that call.

Sacramento Fire Department (SFD)

The SFD provides fire protection and life safety services to a total service area of 146.3 square miles, including 99.2 square miles within the City of Sacramento and two contract areas that include 42.5 square miles of the Natomas Fire Protection District and 4.6 square miles of the Pacific Fruitridge Fire Protection District. Fire stations are strategically located throughout the City to provide assistance to area residents. Each fire station operates within a specific district that covers an approximately 1.5-mile geographical radius area around the station.

The SFD maintains 23 active fire stations and consists of 44 fire companies and medic units (23 engine companies, nine truck companies, and 12 medic units). Nine stations house both an engine and a truck company. An engine and truck require a four-person company, and two-person companies are required for each medic unit. The 456 sworn line employees in the Operations Division are organized into three platoons working in 24-hour shifts that are structured into a 48 hours on duty followed by a 96 hours off (48/96) duty pattern, which is a 56-

hour work week. Each day the emergency response resources are organized into four battalions, each supervised by a Battalion Chief. The closest responding SFD company to the project site is Station 60, which is located at 3301 Julliard Drive. Station 60 is within Battalion 2 and is staffed 24 hours a day, seven days a week by four firefighters and one fire engine, and is located approximately 1.5 miles from the proposed project site. The SFD currently has a Class 2 Insurance Service Office (ISO) rating within the project area, based on the type and extent of training provided to fire personnel, the SFD's existing water supply, and, if necessary, upgrades to the on-site water distribution system.

Response time goals for the first responding company, which is responsible for fire suppression and paramedic services, are to arrive within a four minute response time 90 percent of the time, and medic units are to arrive within eight minutes, 90 percent of the time. In the case of a fire, the goal is to have the first responding company arrive within a four-minute response time 90 percent of the time and an additional 10 responders arrive within eight minutes, 90 percent of the time. Locating fire stations according to 1.5-mile radius service areas typically allows responders to arrive on a call within these response time goals. In more densely populated areas and where call volumes are higher and occur simultaneously, a shorter radius is necessary. According to the SFD *Annual Report 2009* Response Performance figure, the response time for the areas nearby the proposed project site are from three minutes to over five minutes. The SFD's estimated response time to the project site is four minutes, 45 seconds (Malaspino, SFD Fire Marshal, 2008). Medic units' dispatched to the scene arrived within eight minutes 83 percent of the time for all 911 calls in 2009.³

The SFD is divided into the following three divisions: the Office of the Fire Chief, the Office of Operations, and the Office of Administrative Services. The Office of the Fire Chief provides overall direction and management of the department including the following: organizing and directing overall operations; advocating for resources; promoting the Department's image; directing city-wide emergency services; and participation in media relations, fiscal services, and community outreach and education. Emergency response for the community is directed and managed by the Office of Operations. Firefighters provide quick and effective response to medical emergencies, fires, vehicle crashes, special rescues, hazardous material incidents, disasters, and many other types of emergencies. The Office of Operations also administers the fleet program. Administrative and support functions of the SFD, including fire prevention, training, technical services, facility planning, and human resources, are provided by the Office of Administrative Services.

In addition, the SFD has an Emergency Medical Services Division (EMS) and a Fire Prevention Division. The EMS Division provides paramedic transport services in the City of Sacramento, which includes the Advanced Life Support and Transportation Program. The Advanced Life Support and Transportation Program deploys 12 24-hour ambulances along with up to two additional flex ambulances during peak hours throughout the City and contracted areas. The EMS Division develops partnerships with local hospitals and community organizations in the prevention and review of infant, child, and elderly deaths, sexual assaults, domestic violence, and child and adult abuse. The Fire Prevention Division provides the community with a fire-safe environment through a variety of ongoing activities and operations and is responsible for fire investigations, new development review, weed abatement, and code enforcement.

It should be noted that the SFD is in the process of developing a Master Plan document to guide future operations and planning for the Department. The Master Plan would include an

evaluation of the SFD's performance against best practices, evaluate opportunities to improve quality, and provide recommendations to accommodate future growth.

Sacramento Metropolitan Fire District (SMFD)

The SMFD consists of 16 former fire agencies that merged together. Fire protection, emergency services, search and rescue, public education, and training services are provided by the SMFD to a 417-square-mile area including unincorporated areas of Sacramento County, the cities of Rancho Cordova and Citrus Heights, and a small portion of Placer County. With 42 fire stations, with 36 engines and six trucks, and approximately 750 uniformed and support personnel, the SMFD is the seventh-largest fire district in California. The SMFD stations to the project area are Station 54 (8900 Fredrick Avenue, unincorporated Sacramento) and Station 62 (3646 Bradshaw Road, Rancho Cordova). Station 54 is staffed 24 hours a day, seven days a week by three firefighters and one fire engine, and is located less than half a mile north of the project site. Station 62 is also staffed 24 hours a day, seven days a week by five firefighters, one fire engine, and one medic (three firefighters staff the engine and two firefighters staff the medic unit), and is located approximately 3.5 miles east of the project site. The SMFD has an ISO Class 4 rating for areas served by hydrants in the area of the District near the project site.⁴

Parks and Recreation

Cordova Recreation and Park District

The Cordova Recreation and Park District (CRPD) encompasses approximately 75 square miles, includes 34 parks on approximately 430 acres, one golf course, one shooting center, and one sports center. The district serves approximately 110,000 residents in Rancho Cordova and several Sacramento County neighborhoods. The CRPD boundaries are generally defined by the American River to the north, Jackson Road to the south, Prairie City Road to the east and Watt Avenue to the west (See Figure 6-2, Cordova Recreation and Park District Map).

City of Sacramento Department of Parks and Recreation

According to the *City of Sacramento Parks and Recreation Master Plan 2005-2010*, the Department of Parks and Recreation maintains more than 3,160 acres of parkland including 1,716 developed acres, manages 208 parks, recreation, parkway, and open space sites, maintains over 74 miles of bike trails, 14 miles of jogging and walking paths within City parks, and operates over 27 aquatic facilities (e.g., swimming pools, play pools, and wading pools), seven dog parks, eight skateboard parks, 13 community centers, and eight neighborhood centers with numerous programs, rental uses, and leisure enrichment classes. Parks are generally categorized by the Parks Department into the following four distinct park types: 1) neighborhood; 2) community; 3) regional/parkways; and 4) open space. Neighborhood and community parks contribute to a sense of community by providing gathering places for recreation, entertainment, sports, or quiet relaxation, while regional parks tend to be larger and serve the needs of the entire City. Definitions of the four types of parks, as well as further details regarding local parks and recreation facilities are provided in Chapter 5.8, Parks and Recreation, of this Draft EIR.

Figure 6-2
Cordova Recreation and Park District Map



Water Service and Supply

California Public Utilities Commission

The PUC regulates private- and investor-owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC serves the public interest by regulating utility services, stimulating innovation, and promoting competitive markets, where possible. The project site is within the service territory of California American Water, under the jurisdiction of the CPUC.

Cal-Am Water

Cal-Am Water, Northern Division, has eight service areas within Sacramento County. The project site is within the Suburban/Rosemont Cal-Am Water service area. The Suburban/Rosemont service area spans both sides of Highway 50 about nine miles east of downtown Sacramento and is south of the American River and north of Mather Airport. The Suburban/Rosemont service area includes a portion of the City of Rancho Cordova, and primarily includes residential customers, although there are a number of commercial customers along Folsom Boulevard. Approximately 17,000 customers are in the Suburban/Rosemont area.

The service area is supplied with water drawn from the Central Groundwater Basin via eight wells serving the Rosemont sub-area and 20 wells serving the Suburban area. Some wells, particularly those near the Mather Airport are threatened by contamination. Adjacent water purveyors have lost wells due to contamination and have pursued claims against the responsible parties. Groundwater contamination in this portion of the County is a regional issue in which the U.S. Environmental Protection Agency (US EPA) and Regional Board have taken the lead to require abatement and clean up from those responsible.

Cal-Am Water has also pursued responsible parties for contingency/replacement water should facilities be impacted and agreements are in place for certain wells considered threatened. The City of Sacramento and Cal-Am Water have a wholesale water supply agreement in place under which the City sells Cal-Am Water's water in order to provide an additional source of supply to the Suburban/Rosemont area, as well as replacement supplies for wells that may be lost to groundwater contamination in the future. In all, the Suburban/Rosemont service area accounts for about 30 percent of the Northern Division's production.

Cal-Am Water is designated as the current water service provider for the annexation portion of the proposed project site; however, it should be noted that, pursuant to correspondence received in 2012 from Cal-Am Water,⁵ the company does not currently have facilities installed that could provide water service to this portion of the site and the company does not have plans to extend facilities to the area. In addition, the annexation portion of the project site is the only area within Cal-Am Water's service area that is both south of Jackson Highway and west of South Watt Avenue. Within this correspondence, Cal-Am Water indicated that the company does not have any objection to the City of Sacramento providing service to this portion of the site. Further, Cal-Am Water proposed that the City and Teichert seek and obtain the concurrence of Sacramento LAFCo so that the City may properly serve the annexation portion of the site.

City of Sacramento Department of Utilities

The City of Sacramento is the proposed water purveyor for the project. The City relies on both surface water and groundwater for municipal and industrial uses. The City's water supply is obtained from three sources:

- Surface water obtained from the American River;
- Surface water obtained from the Sacramento River; and
- Groundwater.

The City owns and operates two water diversion and treatment facilities; the E.A. Fairbairn Water Treatment Plant (FWTP) and the Sacramento River Water Treatment Plant (SRWTP) divert water from the American River and Sacramento River, respectively. In 2003, the City finished an expansion of the SRWTP increasing its maximum capacity from 110 million gallons per day (mgd) to 160 mgd. An expansion of the FWTP was finished in May of 2005. The expansion increased the maximum capacity of the FWTP from 100 mgd to 200 mgd. The additional capacity constructed at the FWTP may only be used when the flows in the American River are greater than the so called "Hodge Flow Criteria" issued by Judge Richard Hodge in the *Environmental Defense Fund v. East Bay Municipal Utility District* litigation.

The City of Sacramento has a Sacramento River permit (Permit 992) to divert up to 225 cubic feet per second (cfs) and 81,800 acre-feet annually (afa) from the Sacramento River. In addition the City has four water right permits authorizing diversions of up to 589,000 afa of American River water. However, the City's American River water rights scale and the maximum diversion for the year 2030 is 245,000 afa.

The City overlies two sub-basins of the Sacramento Valley Groundwater Basin. According to the City of Sacramento's *2010 Urban Water Management Plan (UWMP)*,⁶ the City currently operates 27 municipal groundwater supply wells within the Sacramento Valley Groundwater Basin, 25 of which are in the northern portion of the City, north of the American River, while the remaining two are south of the American River. Fourteen additional wells are operated separately from the drinking water system and are used to meet irrigation demands of City parks. The total pumping capacity of the City's municipal supply wells is approximately 20.7 mgd, or 22,403 acre-feet (af), assuming 90 percent of the production capacity is available. In 2010, the City pumped 17,772 af of groundwater from the North American subbasin and 665 af from the South American subbasin for potable water consumption.

In addition to supplying water to retail customers, the City also provides water on a wholesale and wheeling basis to other districts and purveyors.

Storage

The City currently has 16 storage facilities: 11 distributed storage tanks are located throughout the City, while five clearwells are located at the water treatment plants. Ten of the storage tanks located throughout the City have a capacity of three million gallons (MG) each, while one storage tank (Florin Reservoir) has a capacity of 15 MG, for a total storage capacity of 45 MG. The combined plant clearwells have a nominal capacity of approximately 45 MG and a usable capacity of 32 MG.

Availability

The City of Sacramento has long-term surface water entitlements that exceed current demand. Based on the UWMP, the City has an authorized surface water supply of 81,800 af per year (af/yr) from the Sacramento River and 245,000 af/yr from the American River. In 2010, the City's total demand was 113,367 af, including groundwater. Therefore, even if the City relied entirely on surface water supplies, an excess supply would exist.

Natural Resources

Agricultural Lands

The United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) uses two systems to determine a soil's agricultural productivity: the Soil Capability Classification and the Storie Index Rating System. The "prime" soil classification of both systems indicates the absence of soil limitation, which if present, would require the application of management techniques (e.g., drainage, leveling, special fertilizing practices) to enhance production. The Farmland Mapping and Monitoring Program, part of the Division of Land Resource Protection, California Department of Conservation, uses the information from the USDA and the NRCS to create maps illustrating the types of farmland in the area.

The annexation (affected territory) portion of the proposed project site is currently vacant aside from a Sacramento Regional County Sanitation District (SRCSD) pump station. Due to former mining activities on-site, topography on the site is varied and vegetation is limited. According to the Initial Study prepared for the proposed project, the Preliminary Geotechnical Engineering report for the project site determined that soils on the project site consist of disturbed native soils and undocumented fill soils related to previous mining activities. In addition, the project would include overexcavation and recompaction of the project site. As a result, the Initial Study determined that the project site did not contain soils classified as prime farmland.

The annexation portion of the site does not contain any areas designated or zoned as agricultural land. The site and surrounding lands are not protected by a Williamson Act contract and are not within a Farmland Security Zone or considered Important Farmland by the Department of Conservation's Important Farmlands Map.

Open Space

The project site is a former aggregate mining site that consists of mining-related uses. Due to the former mining activities, topography on the site is varied and vegetation is limited. Open space resources do not exist on the proposed project site and all surrounding land is developed or consists of similar mining-related activities and land uses. Furthermore, the site is not currently designated or zoned for open space land uses.

Environmental Justice

Environmental justice is defined in California law (Government Code Section 65040.12) as "[...] the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies." The Cortese-Knox-Hertzberg Act states in Government Code Section 56668(o) that "environmental justice"

means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.

According to the U.S. Environmental Protection Agency (US EPA), “Fair Treatment means that no group of people, including racial, ethnic, or socioeconomic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal environmental programs and policies. Meaningful involvement means that (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public’s contribution can influence the regulatory agency’s decision; (3) the concerns of all participants involved will be considered in the decision-making process; and (4) the decision-makers seek out and facilitate the involvement of those potentially affected.”

Environmental justice addresses issues concerning whether a proposed project would expose minority or disadvantaged populations to proportionately greater risks or impacts compared with those borne by other individuals. Both statutory and common-law protections are legal authorities, which support environmental justice efforts.

A condition of environmental justice exists when “Environmental risks and hazards and investments and benefits are equally distributed with a lack of discrimination, whether direct or indirect, at any jurisdictional level; and when access to environmental investments, benefits, and natural resources are equally distributed; and when access to information, participation in decision making, and access to justice in environment-related matters are enjoyed by all.” (US EPA, 1990) An environmental injustice exists when “[...] members of disadvantaged, ethnic, minority or other groups suffer disproportionately at the local, regional (sub-national), or national levels from environmental risks or hazards, and/or suffer disproportionately from violations of fundamental human rights as a result of environmental factors, and/or are denied access to environmental investments, benefits, and/or natural resources, and/or are denied access to information; and/or participation in decision making; and/or access to justice in environment-related matters.”

6.2 REGULATORY BACKGROUND

The following section describes federal, state, and local regulations and policies that are relevant to the proposed project.

Sacramento LAFCo

Because the proposed project would require the LAFCo approval of reorganization of the project site, the project is required to comply with the following applicable Sacramento LAFCo goals, policies, and standards, which are from the *Policy, Standards and Procedures Manual*:

General Policies

5. The CEQA requires that LAFCo assess the environmental consequences of its actions and decisions, and take actions to avoid or minimize a project's adverse environmental impacts, if feasible, or approve a project despite significant effects because it finds overriding considerations exist. To comply with CEQA, the LAFCo will take one or more of the following actions:

- a. At its discretion, approve a project without changes if environmental impacts are insignificant;
 - b. Require an applicant to modify a project;
 - c. Establish mitigating measures as a condition of its approval of the proposal;
 - d. Deny the proposal because of unacceptable adverse environmental impacts;
 - e. Approve the project despite its significant effects by making findings of overriding concern.
6. LAFCo will favorably consider those applications that do not shift the cost for services and infrastructure benefits to other service areas.
8. The LAFCo encourages the use of service providers which are governed by officials elected by the citizens.
9. Community needs are met most efficiently and effectively by governmental agencies which:
- Are already in existence;
 - Are capable of coordinating service delivery over a relatively large area;
 - Provide more than one type of service to the territory which they serve.

General Standards

- B. Conformance with applicable general and specific plans
1. LAFCo will approve changes of organization or reorganization only if the proposal is consistent with the General Plan and applicable Specific Plans of the applicable planning jurisdiction.
 2. For purposes of the above policy, the applicable planning jurisdiction is as follows:
 - a. For annexations to a city, the applicable jurisdiction is the city to which annexation is proposed;
 - b. For applications for annexation to or detachment from a district all of whose territory lies within an adopted Sphere of Influence of a city, the General Plans of the city;
 - c. For an application for annexation to a special district for lands outside an adopted city Sphere of Influence, the Sacramento County General Plan;
 - d. For an application for annexation or detachment from a district whose territory lies in both the city and the unincorporated area of the county, the General Plan of the city unless the project lies outside of the city's Sphere of Influence; and
 - e. For applications for incorporations, this standard is inapplicable.
 3. For purposes of this standard, the proposal shall be deemed consistent if the proposed use is consistent with the applicable General Plan designation and text, the applicable General Plan is legally adequate and internally consistent and the anticipated types of services to be provided are appropriate to the land use designated for the area.

4. The governing body of the applicable planning jurisdiction shall recommend by resolution whether the proposal meets all applicable consistency requirements of state law, including internal consistency. LAFCo shall retain jurisdiction to determine consistency pursuant to its jurisdiction to approve, disapprove or condition changes of organization or reorganization and may require additional information if necessary.

E. Agricultural land conservation

LAFCo will exercise its powers to conserve agricultural land pursuant to the following standards:

1. LAFCo will approve a change of organization or reorganization which will result in the conversion of prime agricultural land in open space use to other uses only if the Commission finds that the proposal will lead to the planned, orderly and efficient development of an area. For purposes of this standard, a proposal leads to the planned, orderly and efficient development of an area only if all of the following criteria are met:
 - a. The land subject to the change of organization or reorganization is contiguous to either lands developed with an urban use or lands which have received all discretionary approvals for urban development.
 - b. The proposed development of the subject lands is consistent with the Spheres of Influence Plan, including the Master Services Element of the affected agency or agencies.
 - c. Development of all or a substantial portion of the subject land is likely to occur within five years. In the case of very large developments, annexation should be phased whenever feasible. If the Commission finds phasing infeasible for the specific reasons, it may approve annexation if all or a substantial portion of the subject land is likely to develop within a reasonable period of time.
 - d. Insufficient vacant non-prime lands exists within the applicable Spheres of Influence that are planned, accessible, and developable for the same general type of use.
 - e. The proposal will have no significant adverse effect on the physical and economic integrity of other agricultural lands. In making this determination, LAFCo will consider the following factors:
 - (1) The agricultural significance of the subject and adjacent areas relative to other agricultural lands in the region.
 - (2) The use of the subject and the adjacent areas.
 - (3) Whether public facilities related to the proposal would be sized or situated so as to facilitate the conversion of adjacent or nearby agricultural land, or will be extended through or adjacent to, any other agricultural lands which lie between the project site and existing facilities.

- (4) Whether natural or man-made barriers serve to buffer adjacent or nearby agricultural land from the effects of the proposed development.
 - (5) Applicable provisions of the General Plan open space and land use elements, applicable growth-management policies, or other statutory provisions designed to protect agriculture.
2. LAFCo will not make the affirmative findings that the proposed development of the subject lands is consistent with the Spheres of Influence in the absence of an approved Sphere of Influence Plan. LAFCo will not make the affirmative findings that insufficient vacant non- prime land exists within the Spheres of Influence Plan unless the applicable jurisdiction has:
 - a. Identified within its Spheres of Influence all "prime agricultural land" as defined herein.
 - b. Enacted measures to preserve prime agricultural land identified within its Sphere of Influence for agricultural use.
 - c. Adopted as part of its General Plan specific measures to facilitate and encourage in-fill development as an alternative to the development of agricultural lands.
3. The LAFCo will comment upon, whenever feasible, Notices of Preparation for Environmental Impact Reports or projects which involve the development of large tracts of open space and agricultural land and that are not scheduled for urbanization within a five-year period. Potential adverse impacts related to the loss of open space or agricultural land also will be commented upon by LAFCo.

Specific Standards by Type of Action

A. Annexations to Cities

1. LAFCo will utilize Spheres of Influence through application of the following standards:
 - a. The LAFCo will approve an application for annexation only if the proposal conforms to and lies wholly within the approved Spheres of Influence boundary for the affected agency;
 - b. The LAFCo generally will not allow Spheres of Influence to be amended concurrently with annexation proposals;
 - c. The LAFCo will favorably consider proposals that are a part of an orderly, phased annexation program by an agency for territory within its Sphere of Influence;
 - d. An annexation must be consistent with a city's Master Services Plan Element of its Sphere of Influence Plan; and
 - e. The LAFCo encourages the annexation to each city of all islands of unincorporated territory and all substantially surrounded unincorporated areas located within the city's Sphere of Influence.

2. The LAFCo will not approve proposals in which boundaries are not contiguous with the existing boundaries of the city to which the territory will be annexed, unless the area meets all of the following requirements:
 - a. Does not exceed 300 acres;
 - b. Is owned by the city;
 - c. Is used for municipal purposes; and
 - d. Is located within the same county as the city.
 3. The LAFCo will favorably consider proposals to annex streets where adjacent municipal lands will generate additional traffic and where there are isolated sections of county road that will result from an annexation proposal. Cities shall annex a roadway portion when 50 percent of the property on either or both sides of the street is within the city.
 4. The LAFCo will favorably consider annexations with boundary lines located so that all streets and rights-of-way will be placed within the same city as the properties which either abut thereon or for the benefit of which such streets and rights-of-way are intended.
 5. An annexation may not result in islands of incorporated or unincorporated territory or otherwise cause or further the distortion of existing boundaries unless it is determined that the annexation as proposed is necessary for orderly growth, and cannot be annexed to another city or incorporated as a new city. Annexations of territory must be contiguous to the annexing city. Territory is not contiguous if its only connection is a strip of land more than 300 feet long and less than 200 feet wide.
 6. The LAFCo opposes extension of services by a city without annexation, unless such extension is by contract with another governmental entity or a private utility.
- G. Reorganization

The LAFCo will evaluate each component organizational change which makes up a reorganization proposal independently. In so doing, the LAFCo will follow the standards presented below:

1. LAFCo will strive to ensure that each separate territory included in the proposal, as well as affected neighboring residents, tenants, and landowners, receive services of an acceptable quality from the most efficient and effective service provider after the reorganization is complete.
2. The service quality, efficiency and effectiveness available prior to reorganization shall constitute a benchmark for determining significant adverse effects upon an interested party. The LAFCo will approve a proposal for reorganization which results in this type of significant adverse effects only if effective measures are included in the proposal.

Housing

Sacramento Area Council of Governments (SACOG)

SACOG is a Metropolitan Planning Organization (MPO) for the six-county Sacramento region, including El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties, as well as 22 cities within the region. SACOG provides transportation planning and funding for the region, and serves as a forum for the study and resolution of regional uses. In addition, to preparing the region's long-range transportation plan, SACOG approves the allocation of affordable housing in the region and assists in the planning for transit, bicycle networks, clean air, and airport land uses.

Additional federal, State, and local regulations pertaining to housing requirements relevant to the proposed project are presented in Chapter 4, Land Use, Population, and Housing, of this Draft EIR.

Fire Protection

Chapter 5.9, Public Services, of this Draft EIR includes relevant federal, State, and local regulations pertaining to fire protection for the proposed project.

Parks and Recreation

Chapter 5.8, Parks and Recreation, of this Draft EIR includes relevant federal, State, and local regulations pertaining to parks and recreation.

Water Service and Supply

California Water Code

The California Water Code requires urban water suppliers within the state to prepare and adopt Urban Water Management Plans (UWMPs) for submission to the California Department of Water Resources (DWR). The UWMPs, which must be filed every five years, must satisfy the requirements of the Urban Water Management Planning Act (UWMPA) of 1983, including amendments that have been made to the Act. The UWMPA requires urban water suppliers servicing 3,000 or more connections, or supplying more than 3,000 acre-feet (AF) of water annually, to prepare a UWMP.

The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during water drought conditions. This report, which was prepared in compliance with the California Water Code, and as set forth in the guidelines and format established by the DWR, constitutes the City of Sacramento UWMP.⁷

The UWMP can be considered a "snapshot" of current conservation programs, and additional planning for water conservation and water management will take place over the next few years. The City has engaged in an ongoing process to evaluate its water conservation programs, which has involved or will involve the City Council, City staff, the City's Water Conservation Advisory Group, and the public. The City's water conservation programs may be revised when

this process is complete. Important elements include finalization of the Water Conservation Plan expected by the spring of 2012, and a preliminary conservation pricing study to be completed this fall, with additional conservation pricing work in the future. Additional conservation work (both planning and implementation) will likely result as part of the input provided from the Water Conservation Advisory Group. It is anticipated that any changes in Sacramento's water conservation programs will reflect the benefits (and costs) of water conservation in this region, including benefits associated with protecting the environmental health of the rivers that are integral to the region's quality of life. Moreover, water conservation is an important measure to both reduce greenhouse gas generation and to adapt to a predicted future outcome – decreased snowpack in the Sierra Nevada Mountains.

Maintaining and delivering a high-quality, reliable water supply is a primary focus of the City. Although water is a renewable resource, it is limited. A long-term reliable supply of water is essential to protect the local and state economy. Water conservation in the City has multiple benefits – it can make more water available to improve American River flow conditions, it can improve water quality in the American and Sacramento Rivers and the Delta, it can improve the long-term reliability of the region's water supply, and it can lower the cost of water service to the City's customers.

The City is in the process of improving its water conservation programs and has already institutionalized water conservation by adopting several City ordinances and water conservation plans, becoming a signatory to the California Urban Water Conservation Council's (CUWCC) Memorandum of Understanding (MOU) in 1991, and approving the Water Forum Agreement in 2000. Continual support and enhancement of these programs is a primary objective for the City to ensure adequate water supply for the future. These actions have helped the City promote water conservation while managing increasing water demands due to extensive growth within the City's service area. Reducing the demand of current and future water customers, and assuring that all new system uses are efficient, will reduce the amount of water the City will need to meet potable water demands at buildout.

Additional federal, State, and local regulations pertaining to water service and supply relevant to the proposed project are presented in Chapter 5.6, Hydrology, Water Quality, and Drainage, and Chapter 5.12, Utilities, Service Systems, and Energy, of this Draft EIR.

Government Code §56653(4) and §56668(k)

Government Code § 56653(4) states that whenever a local agency or school district submits a resolution of application for a change of organization or reorganization, the local agency must submit with the resolution of application a plan for providing services within the affected territory, including an indication of any improvement or upgrading of structures, roads, sewer or water facilities, or other conditions the local agency would impose or require within the affected territory if the change of organization or reorganization is completed. In addition, according to §56668(k), "factors to be considered in the review of a proposal shall include [...] timely availability of water supplies adequate for projected needs as specified in Section 65352.5."

Agricultural Lands and Open Space

California Land Conservation Act – Williamson Act

The California Land Conservation Act, better known as the Williamson Act, has been the State's premier agricultural land protection program since the act's enactment in 1965. The California legislature passed the Williamson Act in 1965 to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The Act creates an arrangement whereby private landowners contract with counties and cities to voluntarily restrict land to agricultural and open-space uses. The vehicle for these agreements is a rolling term 10-year contract (i.e., unless either party files a "notice of nonrenewal," the contract is automatically renewed annually for an additional year). In return, restricted parcels are assessed for property tax purposes at a rate consistent with their annual use, rather than potential market value.

Sacramento 2030 General Plan

The following *Sacramento 2030 General Plan* goals and policies are from the Environmental Resources: Agriculture Element.

Goal ER 4.1 Access to Locally Grown and Organic Foods. Support access to locally grown and organic foods to Sacramento residents as a means of supporting local farmers, keeping agricultural lands in production, promoting sustainable agricultural practices, reducing energy expended on food transport, and preserving Sacramento's agricultural heritage.

Policy ER 4.1.1 Locally Grown and Organic Foods. The City shall provide venues for farmer's markets, particularly in areas that lack access to fresh and healthy foods, and encourage serving locally grown and organic foods at City public facilities.

Policy ER 4.1.2 Community and Rooftop Gardens. The City shall promote urban agriculture by supporting community and rooftop gardens and recognize their value in providing fresh food in urban areas in addition to their recreational, community building, landscaping, and educational value.

Goal ER 4.2 Growth and Agriculture. Support preservation and protection of agricultural lands and operations outside of the city for their value for open space, habitat, flood protection, aesthetics, and food security by working with surrounding jurisdictions.

Policy ER 4.2.1 Protect Agricultural Lands. The City shall encourage infill development and compact new development within the existing urban areas of the city in order to minimize the pressure for premature conversion of productive agricultural lands for urban uses.

Policy ER 4.2.2 Permanent Preservation. The City shall work with the County, Natomas Basin Conservancy, and other entities to protect and permanently preserve a one-mile buffer

outside of the current city limits as of adoption of the General Plan to preserve viable agricultural activities and as a community separator between Sutter and Sacramento Counties and along the Sacramento River.

Policy ER 4.2.3 Coordinate to Protect Farmland. The City shall continue to work with County and other adjacent jurisdictions to implement existing conservation plans to preserve prime farmland and critical habitat outside the city.

Policy ER 4.2.4 Development Adjacent to Agriculture. The City shall require open space or other appropriate buffers for new development abutting agricultural areas to protect the viability of existing agricultural operations outside of the city and ensure compatibility of uses with residents in adjacent areas.

Environmental Justice

Federal

Executive Order 12898

On February 11, 1994, President Clinton issued Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low income Populations.” Order 12898 is designed to focus attention on environmental and human health conditions in areas of high minority and low-income communities and to prevent discrimination in programs and projects substantially affecting human health and the environment. The Order requires that the U.S. EPA and all other federal agencies (as well as State agencies receiving federal funds) develop strategies to address this issue. The agencies are required to identify and address any disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and/or low-income populations.

State

California Government Code Section 65040.12

California Government Code, Section 65040.12 (e), defines environmental justice as “[...] the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” California Government Code Section 65040.12 (a), designates the Governor’s Office of Planning and Research (OPR) as the coordinating agency in State government for environmental justice programs, and requires OPR to develop guidelines for incorporating environmental justice into general plans.

Title 14 California Code of Regulations (CCR) Section 15131

Title 14, CCR Section 15131 provides that economic or social information may be included in an EIR, but those economic or social effects shall not be considered significant effects on the environment. In an EIR, the lead agency is responsible for researching economic or social

changes resulting from a project, which may eventually lead to physical changes in the environment. These economic or social changes can be used to determine the significance of physical changes on the environment.

SB 244

As discussed above, SB 244 made two changes to the Cortese-Knox-Hertzberg Act. SB 244 requires that LAFCoS deny any application to annex to a City territory that is contiguous to a disadvantaged unincorporated community unless a second application is submitted to annex the disadvantaged community. In addition, LAFCoS are required to evaluate disadvantaged unincorporated communities in an MSR upon the next SOI update or after June 30, 2012. SB 244 is intended to encourage investment in disadvantaged unincorporated communities, which may not be provided basic infrastructure, by mandating LAFCoS and cities to include the communities in their land use planning.

SB 115

SB 115 modifies Government Code Section 65040.12, et seq., designating OPR as the coordinating agency in state government for Environmental Justice programs. SB 115 requires the Director of Planning and Research to consult with secretaries of specified state agencies and other parties in order to coordinate OPR's efforts, to share specified information with certain federal agencies, and to review and evaluate other federal information. SB 115 defines Environmental Justice to mean "[...] the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies."

SB 162

SB 162 amends Section 56668 of the Government Code and requires LAFCoS to consider information or comments from voters or residents of the affected territory and the extent that an incorporation proposal would promote environmental justice, thereby amending the existing Cortese-Knox-Hertzberg Act.

Local

LAFCo Policies

Appendix D of the OPR Incorporation Guidelines includes a background on the civil rights and environmental justice responsibilities of LAFCo, an explanation of inequities and analysis recommendations.

6.3 IMPACTS AND MITIGATION MEASURES

This section evaluates the project's potential impacts related to reorganization of the project site.

Standards of Significance

Impacts related to reorganization of the project site would be considered significant if the proposed project would result in the need for new or altered services related to any of the following:

- Affordable Housing;
- Fire Protection Services;
- Parks and Recreation;
- Water Service and Supply;
- Agricultural Lands; or
- Open Space.

In addition, impacts related to the reorganization of the project site would be considered significant if the reorganization would result in adverse effects or impacts that are appreciably more severe in magnitude or are predominately borne by any segment of the population, for example, household population with low income or a minority population in comparison with a population that is not low income or minority (i.e., Environmental Justice impacts).

Method of Analysis

The following section evaluates the impacts of the proposed project on the existing public services that would occur if the project as currently proposed is approved and implemented. Impact significance is determined by comparing project conditions to the existing conditions, using the above significance criteria. The general methodology employed is based on information provided in the *Sacramento 2030 General Plan Draft MEIR* and the *Sacramento LAFCo Policy, Standards and Procedures Manual*.

Project-Specific Impacts and Mitigation Measures

6-1 Impacts related to the loss of affordable housing.

Impacts related to population, employment, and housing for the proposed project area are presented in Chapter 4, Land Use, Population, and Housing, of this Draft EIR. As stated previously, the annexation portion of the proposed project site is currently vacant aside from an SRCSD pump station. As such, affordable housing does not exist on the project site and a loss of such housing would not result due to implementation of the proposed project. In addition, as discussed above, the 29.5-acre annexation portion of the site was not included as part of the RHNA for Sacramento County because the site is currently zoned Heavy Industrial (M-2[SM]) and Industrial Reserve Surface Mining Combining Zone.

The annexation portion of the project site is part of a larger project (the proposed Aspen 1-New Brighton project) that would provide affordable housing. Consistent with General Plan Housing Element policies and the City of Sacramento Inclusionary Housing

Program, the Aspen 1-New Brighton project would include the development of a variety of housing tenure, sizes, and types, including approximately 137 income-restricted housing units. Therefore, impacts related to the loss of affordable housing would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

6-2 Impacts to the Sacramento Metropolitan Fire District.

The proposed project includes the detachment of approximately 29.5 acres of the project site from the SMFD and annexation to the City of Sacramento. The 29.5-acre portion of the project site is currently located within Division 9 of the SMFD.

The annexation portion of the proposed project site consists of paved asphalt in the northern portion, part of the former nursery, and vacant reclaimed land in the southern portion. Annexation of the 29.5 acres would result in a decrease in demand for SMFD fire services, as the SMFD would no longer be responsible for servicing the site. In addition, although the 29.5 annexed acres would cease to generate potential funding for the SMFD, the annexation portion of the site represents less than 0.02 percent of SMFD service area. Therefore, annexation of the 29.5 acres would result in a **less than significant** impact to the SMFD, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

6-3 Impacts related to an increase in demand for fire protection services.

A majority of the proposed project is already within the City and is currently being served by the SFD, which is designated as the first responder for the project site. However a 29.5-acre portion of the proposed project site is not currently within City limits and would be annexed into the City as part of the proposed project. Upon annexation, this portion of the site would be served by the SFD as well. All fire and emergency service providers in the County of Sacramento have developed a Joint Powers Authority in favor of a unified service area dispatch system. Under the JPA agreement, all emergency calls are routed through a central dispatch center. Therefore, the closest station to the emergency call location would provide services to that call. The SFD's Julliard Station (Station #60), located north of the project area at 3301 Julliard Drive, currently serves the project site. The Station is staffed 24 hours a day, seven days a week by four firefighters and one fire engine, and is located approximately 1.5 miles from the project site. The SFD's estimated response time to the project site is four minutes and 45 seconds. The closest SMFD stations to the project area are Stations 54 and 62. Station 54 is staffed 24 hours a day, seven days a week by three firefighters and one fire engine, and is located less than half a mile north of the project site. Station 62 is also staffed 24 hours a day, seven days a week by five firefighters, one fire engine, and one medic (three firefighters staff the engine and two firefighters staff the medic unit), and is located approximately 3.5 miles east of the project site. SMFD's estimated response time to the project site is three minutes and 38 seconds.

Development within the project area would increase the demand for higher levels of fire protection and emergency services, including additional staffing and vehicles, but would not necessitate the construction of additional facilities. Upon annexation, a Tax Exchange Agreement would generate funds for the City, allowing for the provision of adequate services. In addition, the City's annual budget allocates a certain percentage of the City's General Fund toward police and fire services. The proposed project would generate significant revenues to the City through property tax, sales tax, Measure A tax, and utility user tax. The project's tax revenues would contribute to the City's General Fund, and would thereby contribute to fire and emergency services.

According to the *Sacramento 2030 General Plan MEIR*, implementation of the City's General Plan fire-related goals and policies would result in a less-than-significant impact. Such policies include the following: Policy PHS 2.1.11, which requires payment of a development impact fee for fire protection facilities and services; and Policies PHS 2.2.3 and PHS 2.2.4, which require that the project design be subject to review and approval by the SFD to ensure that all proposed project buildings include adequate fire protection equipment and infrastructure, such as fire sprinkler systems, as required by the California Fire Code. The SFD would provide any additions and/or modifications to be incorporated into the proposed fire systems necessary to ensure that the proposed project adequately addresses safe design and on-site fire protection in compliance with applicable fire and building codes, including the California Fire Code. Compliance with the City's General Plan policies is enforced by Sacramento City Code Chapter 15.08, which requires that the payment of development impact fees, a Fire Department Inspection Fee to offset costs to review plans and supervise installation of, and periodic testing of, state mandated life safety systems, as well as any other fire-related fees, as determined upon development review, are paid prior to the issuance of the proposed project's building permits. Because the proposed project would comply with the various fire-related goals and policies of the City's General Plan, impacts related to fire protection and emergency services would be considered **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)
None required.

6-4 Impacts to the Cordova Recreation and Park District.

The project includes detachment of a 29.5-acre portion of the project site from the CRPD. The City of Sacramento would provide parks and recreation services upon annexation. The Sacramento County land use and zoning designations for the 29.5-acre annexation portion include mining, agricultural, and industrial uses. Because development of the annexation portion under existing designations would not include residential units, the demand for park facilities would remain the same. In addition, the non-residential uses would not generate park development fees. It should be noted that the City would enter into a tax exchange agreement with the County, which would ensure that the CRPD would not lose funds upon annexation of the 29.5-acre parcel. Therefore, annexation of the 29.5 acres would not alter the demand for park facilities in the CRPD and would not result in the loss of park development fees, resulting in a **less than significant** impact. As a result, the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

6-5 Impacts to the Sacramento Department of Parks and Recreation.

It should be noted that the annexation portion of the proposed project site, which is part of the larger Aspen 1-New Brighton project, would require detachment from the Cordova Recreation and Park District and would be served by the City of Sacramento Department of Parks and Recreation. This detachment and annexation would not have direct or indirect physical environmental impacts and would be processed as a separate entitlement in the future.

The introduction of new residents to the project area could cause or accelerate the physical deterioration of existing parks or recreational facilities; however, implementation of the proposed project would include the construction of new parks and recreational facilities, which would result in new residents utilizing the newly-developed recreational facilities in the community. The City of Sacramento Code, Chapter 16 requires five acres of neighborhood and community park facilities per 1,000 residents. Based on the park dedication factors within the Code (0.0149 for single-family residential units and 0.0088 for multi-family residential units), the project would be required to provide 14.95 acres of parkland.

The proposed project would include an urban farm with community gardens, a community serving park, a neighborhood serving park, two mini-parks, medians and promenades, and various open space areas. The project would provide a total of 14.5 acres of public park and recreational areas that are eligible for Quimby Credit, with an additional 52.3 acres of private open space and recreational areas. The additional 52.3-acre area includes the 23.8-acre urban farm parcel and 28.5 acres of median boulevard parks, landscaped entries, corridors along streets, shortcuts, and slope areas.

Pursuant to Chapter 18.44 of the Sacramento City Code, payment of a park development impact fee is required for residential and non-residential development within the City. Fees collected pursuant to Chapter 18.44 are primarily used to finance the construction of park facilities. Therefore, the project applicant would also be required to pay the appropriate park development impact fees for the project.

As discussed in Chapter 5.8, Parks and Recreation, of this Draft EIR, because the project would include the dedication of 14.5 acres of parkland, which would be less than the 14.95 acres required by the City, the project would result in a ***potentially significant*** impact related to creating a need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan.

Mitigation Measure(s)

Implementation of the following mitigation measure (which requires that the project applicant demonstrate that the required park acreage is provided, pay an in-lieu fee to the City, or enter into a private recreational facilities agreement for future improvements to serve resident) would reduce the above impact to a *less than significant* level.

6-5 *Implement Mitigation Measure 5.8-1.*

6-6 Impacts to Cal-Am Water.

The project includes a modification of the service boundaries of Cal-Am Water as a result of annexation of a 29.5-acre portion of the proposed project site. Upon annexation, the 29.5 acres would be served by the City of Sacramento. The Sacramento County land use designations and zoning designations for the annexation portion of the site include mining, agricultural, and industrial uses. Annexation of the 29.5 acres would minimally decrease the demand for water services from Cal-Am Water. In addition, annexation of the 29.5 acres would not reduce groundwater recharge within the Cal-Am Water service area. Therefore, annexation of the 29.5 acres would not significantly alter the demand for water services from Cal-Am Water or impact groundwater recharge, resulting in a ***less than significant*** impact.

Mitigation Measure(s)

None required.

6-7 Impacts to the City of Sacramento Department of Utilities.

The City's Department of Utilities (DOU) is responsible for providing and maintaining water, sewer collection, storm drainage, and flood control services along with solid waste removal for residents and businesses within the City Limits.

As discussed in Chapter 5.12, Utilities, Service Systems, and Energy, of this Draft EIR, Cal-Am Water is designated as the current water service provider for the annexation portion of the proposed project site. However, it should be noted that, pursuant to correspondence received in 2012 from Cal-Am Water,⁸ the company does not currently have facilities installed that could provide water service to this portion of the site and the company does not have plans to extend facilities to the area. Within this correspondence, Cal-Am Water indicated that the company does not have any objection to the City of Sacramento providing service to this portion of the site. Therefore, the proposed annexation would change the water purveyor for the annexation portion of the proposed project site from Cal-Am Water to the City. Upon annexation of the project site, the City of Sacramento water supply, treatment, and delivery system can be extended to provide service to the site without creating a negative impact to the project or the existing level of City-wide service.

In addition, as discussed in Chapter 5.12, Utilities, Service Systems, and Energy, of this Draft EIR, the City's current service providers would be capable of providing adequate wastewater services to the proposed project (including the annexation portion) without adverse impacts to current service levels, and adequate landfill capacity and solid waste services would also be available for the project in its entirety.

Therefore, annexation of the 29.5 acres would result in a ***less than significant*** impact to the Department of Utilities, and the project would not create impacts to the Department of Utilities outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

6-8 Impacts to agricultural lands.

As stated previously, the annexation area of the project site is currently vacant aside from a SRCSD pump station. Due to former mining activities on-site, topography on the site is varied and vegetation is limited. Agricultural land uses are not associated with the project site, including the annexation area or surrounding lands. In addition, the site is not designated or zoned for agricultural land uses.

The Initial Study determined that the project site is not considered Prime Farmland, as the soil conditions consist of disturbed native soils and undocumented fill soils related to previous mining activities and the project would require overexcavation and recompaction of the site. In addition, the site and surrounding lands are not protected by a Williamson Act contract and are not within a Farmland Security Zone or considered important farmland by the Department of Conservation's Important Farmlands Map. As a result, implementation of the proposed project would not result in the loss of prime agricultural land or protected agricultural land.

The annexation portion of the proposed project site is a small part of the larger Aspen 1-New Brighton project site. The Aspen 1-New Brighton project would include 32.3 acres of land designated Urban Farm in the southwest portion of the project site, which is intended to celebrate the former agricultural heritage of the greater Brighton community along Jackson Highway and to provide local residents the ability to obtain locally-grown produce. (It should be noted that the land proposed to be designated Urban Farm is not located within the annexation area of the project site.) The urban farm is designed to serve as the centerpiece of the community, and would provide a central location for residents and surrounding neighbors to obtain fresh produce and assorted agricultural goods. A community barn that could host community events such as farmers markets, barn dances, outdoor movies, harvest festivals, and craft fairs is proposed to be included in the urban farm area. In addition, the project would include the establishment of a community garden where residents would be able to individually cultivate their own small garden plots. The community garden would be centrally located and in close proximity to the urban farm, and it is anticipated the community garden and urban farm would share resources and develop an interactive relationship. The urban farm, in conjunction with the comprehensive open space and park facilities of the proposed project, serves to promote the guiding principles of wellness and community envisioned by the New Brighton Community.

The 29.5-acre portion of the site currently consists of mining-related uses and the SRCSD pump station, and annexation of these acres would not result in the loss of any agricultural land or farmland. In fact, the Aspen 1-New Brighton project would introduce a new urban farm land use to the project area; therefore, impacts to agricultural lands would be ***less than significant***. As a result, the project would not create impacts to agricultural lands outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

6-9 Impacts related to open space land uses.

According to California Government Code Section 56059, “open space’ means any parcel or area of land or water which is substantially unimproved and devoted to an open-space use, as defined in Section 65560.” The definition for open space set forth by California Government Code Section 65560 is as follows:

(b)"Open-space land" is any parcel or area of land or water that is essentially unimproved and devoted to an open-space use as defined in this section, and that is designated on a local, regional or state open-space plan as any of the following:

- (1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
- (2) Open space used for the managed production of resources, including but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.
- (3) Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
- (4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.
- (5) Open space in support of the mission of military installations that comprises areas adjacent to military installations, military training routes, and underlying restricted airspace that can provide additional buffer zones to military activities and complement the resource values of the military lands.
- (6) Open space for the protection of places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

The annexation portion of the proposed project site is not currently designated or zoned for open space land uses. Open space areas, as defined above, do not exist on the annexation portion or on surrounding lands. Thus, annexation of the 29.5 acres would not result in the loss of open space resources. The Aspen 1-New Brighton project, as a whole, would include 52.3 acres of open space and recreational areas, which include the 23.8-acre Urban Farm Parcel and 28.5 acres of median boulevard parks, landscaped entries, corridors along streets, shortcuts, and slope areas. Therefore, because the annexation of the 29.5 acres would not result in the loss of open space lands and the overall project would provide new open space areas, impacts related to open space land

uses would be considered **less than significant**. Consequently, the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

6-10 Impacts related to Environmental Justice.

The Aspen 1-New Brighton project, as a whole, would include a range of housing types, including 133.5 acres of land designated Single-Family Residential (including 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential) and 43.1 acres of land designated Multi-Family Residential/Mixed Use, as well as 50 residential units within both the Shopping Center and Urban Farm zones. As required by Sacramento City Code, approximately 10 percent of the Aspen 1-New Brighton project's proposed residential units would be designated for low-income and very low-income housing.

The project would include the annexation of a 29.5-acre portion of the site from the County of Sacramento to the City of Sacramento. As stated in Chapter 5.5, Hazards and Hazardous Materials, the project is located adjacent to an active landfill and a former landfill. However, Phase I and Phase II Environmental Assessments were prepared to analyze potential hazard related impacts, including impacts within the 29.5-acre annexation area. The environmental assessments determined that the impacts related to exposure of people to hazards during operation of the project would be less-than-significant for the project site and the annexation portion of the site.

In addition, any changes in level of service to the community would equally affect all population groups within the project; not just the affordable housing component. Furthermore, as noted above (as well as in the following chapters of this Draft EIR: Chapter 5.8, Parks and Recreation, Chapter 5.9, Public Services, and Chapter 5.12, Utilities and Service Systems), with the implementation of mitigation measures, the project would provide adequate services and utilities to proposed residences, including any located within the proposed annexation area.

The proposed project is not limited to minorities or low-income residents, includes a range of housing types, and provides adequate public service and utilities. In addition, none of the project residences would be exposed to a disproportionate impact from one or more environmental hazards. Therefore, the impact related to environmental justice would be **less than significant**, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

6-11 Impacts related to consistency with Sacramento LAFCo policies and standards.

Significant environmental impacts would not occur as a result of reorganization of the project site. As discussed above, reorganization of the project site would result in changes in the provision of services and costs thereof. However, adequate services would still be able to be provided efficiently and effectively by the City without significant

financial impacts, as only a small portion of the site requires annexation. The City already adequately provides services within the City limits.

Payment of development impact fees, a Fire Department Inspection Fee to offset costs to review plans and supervise installation of, and periodic testing of, state mandated life safety systems, as well as any other fire-related fees, as determined upon development review, would be paid to the SFD prior to the issuance of the proposed project's building permits. Demand for park facilities from the CRPD would not be altered and a loss of park development fees would not result. In addition, project applicant would pay the required park development fees to the City of Sacramento. Annexation of the 29.5 acres would not significantly alter the demand for water services from Cal-Am Water or reduce groundwater recharge in the area. In addition, the City of Sacramento has adequate water supplies to serve the project, including the annexation area.

As discussed in Chapter 4, Land Use, Population, and Housing, of this Draft EIR, the project is generally consistent with the City's General Plan goals and policies, including those stated above regarding agriculture. The Aspen 1-New Brighton project, as a whole, would provide a new urban farm land use, open space areas, and various recreational areas. In addition, annexation of the 29.5 acres would not result in the conversion of prime agricultural land or open space uses to other uses.

The annexation portion of the project site is within the City's Sphere of Influence; thus, an amendment to the existing Sphere of Influence would not be required. Annexation of the area would not result in the creation of any islands of unincorporated territory, as the site is contiguous with the existing boundaries of the City. As discussed above, extension of City services would occur upon annexation and the City would be capable to provide adequate service of acceptable quality to the area. The City would be the most efficient and effective service provider for the project site, as the majority of the site is already within existing City limits. Accordingly, the quality, efficiency, and effectiveness of the existing services at the site would continue upon reorganization of the site.

In conclusion, the proposed project would generally comply with the LAFCo policies and standards as presented above. Therefore, because the proposed project would be consistent with Sacramento LAFCo policies and standards, impacts would be considered ***less-than-significant***, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

6-12 Long-term impacts to public services and facilities from the proposed project in combination with existing and future developments in the Sacramento area.

Implementation of the proposed project would contribute towards a cumulative increase in demand for public services within the City of Sacramento. According to the General Plan, new public services personnel and facilities would be required for General Plan buildout conditions. The increase in the demand for service within City of Sacramento have been evaluated in the *Sacramento 2030 General Plan MEIR*, which concluded that

cumulative impacts to public services would be less-than-significant with implementation of City goals and policies that ensure availability of adequate services for buildout.

Development of the proposed project would generate an incremental increase in demand for public services and facilities. As demonstrated in this Draft EIR, the proposed project would comply with all applicable City goals and policies, including payment of development impacts fees. In addition, it should be noted that the proposed annexation area, at 29.5 acres, is relatively small. Therefore, the proposed project's incremental contribution to the cumulative impact to public services, which was identified as less-than-significant in the *Sacramento 2030 General Plan MEIR*, would be less than cumulatively considerable. Furthermore, future development projects would be required by the City to pay their fair share fees toward the expansion and creation of public services and facilities. Therefore, the proposed project would have a **less than significant** cumulative impact, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

6-13 Impacts related to the provision of adequate recreational facilities on the project site in combination with existing and future development in the Sacramento area.

The City's *Parks and Recreation Master Plan 2005-2010* indicates that the project applicant must dedicate land for local recreation or park facilities that would be sufficient in size and topography to serve the residents of the subdivision. As discussed in Impact 5.8-1 in Chapter 5.8, Parks and Recreation, of this Draft EIR, the proposed project would meet the requirements of the City via providing sufficient parkland to serve the future residents of the project site and/or paying the applicable park development fees. All future individual development projects would be required under City Code and the City's *Parks and Recreation Master Plan* to provide adequate recreational facilities according to each project's individual contribution to the City's population. Therefore, development of the proposed Aspen 1-New Brighton parks and recreational facilities, including any located within the 29.5-acre annexation portion of the project site, would result in a **less than significant** cumulative impact, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

6-14 Impacts related to the cumulative loss of agricultural lands and open space areas from development of the proposed project in conjunction with other approved and future projects within the City of Sacramento.

Eventual buildout of approved and future projects in the area could contribute to the regional loss of agricultural and open space land within the City of Sacramento and surrounding areas. As stated above, annexation of the 29.5-acre portion of the project site would not result in the loss of agricultural lands or open space areas. As a whole, the Aspen 1-New Brighton project would provide new agricultural and open space land uses to the area. Consequently, annexation of the 29.5 acres would not contribute toward the cumulative loss of agricultural and open space land within the City of

Sacramento and surrounding areas. On the contrary, the Aspen 1-New Brighton project would result in positive impacts related to agricultural lands and open space, as the project would promote a local agricultural community through use of the urban farm portion of the site and includes open space and recreational areas that encourage multi-modal connectivity throughout the community. Therefore, the proposed project would result in ***less than significant*** cumulative impacts related to agricultural and open space land and the project would not create impacts outside of those anticipated within the General Plan MEIR.

Mitigation Measure(s)

None required.

Endnotes

¹ City of Sacramento. *Sacramento 2030 General Plan*. March 2009.

² City of Sacramento. *Sacramento 2030 General Plan Master EIR*. March 2009.

³ Sacramento Fire Department. *Annual Report 2009*. 2010.

⁴ Sacramento Metropolitan Fire District. Personal communication with Russel Blair. April 3, 2012.

⁵ California-American Water. Letter re: California American Water Adjustment of Service Territory - Aspen 1. February 10, 2012.

⁶ Carollo Engineers. *2010 Urban Water Management Plan*. October 2011.

⁷ Ibid.

⁸ California-American Water. Letter re: California American Water Adjustment of Service Territory - Aspen 1. February 10, 2012.

7. CEQA CONSIDERATIONS

7

CEQA CONSIDERATIONS

7.0 INTRODUCTION

The CEQA Considerations chapter of the EIR includes brief discussions regarding the topics that are required to be included in an EIR, pursuant to the California Environmental Quality Act (CEQA) Guidelines Section 15126.2. The chapter first includes a discussion of the potential for the Aspen 1-New Brighton project (proposed project) to induce economic or population growth. In addition, the chapter includes a list of cumulative impacts, significant cumulative impacts, significant irreversible environmental impacts and significant and unavoidable environmental impacts which cannot be avoided if project is implemented.

7.1 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of CEQA Guidelines requires that the EIR discuss the growth-inducing impacts of the proposed project. Specifically, CEQA states:

Discuss the ways in which the Proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects, which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities, which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

Growth-inducing impacts can result from development that directly or indirectly induces additional growth pressures that are more intense than what is currently planned for in general and community plans. An example of this would be the redesignation of property planned for agriculture uses to urban uses. The growth inducement that could result, in this example, would be the development of services and facilities that could encourage the transition of additional land in the vicinity to more intense urban uses.

Potential Growth Inducing Effects

The *Sacramento 2030 General Plan* designates the project site Traditional Neighborhood Medium (195.3 acres), Suburban Center (7.5 acres), and Special Study Area (29.5 acres). The project would include annexation of the Special Study Area and a General Plan Amendment to designate the Special Study Area portion of the site to Suburban Center and Traditional Neighborhood Medium, which would result in the development of approximately 126.5 gross acres of Traditional Neighborhood Medium and 12.4 gross acres of Suburban Center uses. As determined in Chapter 4, Land Use, Population, and Housing, of this Draft EIR, the proposed project would be consistent with the proposed *2030 General Plan* Land Use designations.

Development of approximately 1,365 residential units, including 483 single-family units, 378 multi-family units, 405 mixed-use units, 50 suburban center units, and 50 urban farm units would result from the proposed project. As such, the project would provide a variety of housing tenure, size, and type, including approximately 137 income-restricted housing units. In addition, the project includes a mixed-use retail, employment, and residential development along Jackson Highway.

Potential buildout of the project site with the existing land use designations could result in the development of 1,198 to 3,103 residential units (See Chapter 4, Land Use, Population, and Housing). However, as stated above, the proposed project includes the development of approximately 1,365 residential units, which is 167 more than and 1,738 less than anticipated for the project site. Therefore, the resultant population generated by the proposed project would be within the minimum and maximum population anticipated for the project site in the *2030 General Plan* Housing Element. In addition, it should be noted that the project's proposed infrastructure would be sized to accommodate only the project itself. As such, the growth inducing effects of the proposed project would be considered less than significant.

7.2 CUMULATIVE IMPACTS

According to CEQA Guidelines, Section 15355, "Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines, Section 15355(a) requires that cumulative impacts be discussed when the project's incremental effect is cumulatively considerable, as defined in Section 15065(c). "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. This section of the EIR identifies those significant cumulative impacts associated with development and operation of the proposed project. Section 15130 of the CEQA Guidelines states that "[...] the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone."

Cumulative Environment

The CEQA Guidelines provide that a lead agency may describe the cumulative environment by either a listing of pending, proposed, or reasonably anticipated projects, or through a summary of projections contained in an adopted general plan or a related planning document that describes area-wide or regional cumulative conditions.

For the purposes of this EIR, a projection of cumulative buildout was based on the City's *2030 General Plan*. Specifically for the cumulative traffic conditions, cumulative buildout was based on the City's General Plan for areas within City boundaries, the land use and transportation networks associated with the County's proposed *2030 General Plan Update* for areas within the unincorporated County, and year 2030 land use estimates and networks for areas located elsewhere. Cumulative traffic volume forecasts were developed through use of SACSIM, which is a regional travel model that encompasses the entire Sacramento region and forecasts peak hour and daily traffic volumes based upon projections of future land use and transportation networks throughout the region.

Some cumulative impacts have an impact area that is smaller than the region as a whole. For example, local circulation impacts would be limited to the portion of the City of Sacramento that is served by the existing street system. Other cumulative impacts, such as air quality, have a wider impact area.

7.3 SIGNIFICANT CUMULATIVE IMPACTS

The following are the significant cumulative impacts that would result, without applying mitigation, from the proposed project plus long-range cumulative development.

Air Quality and Climate Change

Cumulative impacts regarding air quality and climate change are discussed in Chapter 5.1 of this Draft EIR. Impact 5.1-9 concluded that cumulative impacts related to an increase in ROG and NO_x emissions during operation would be significant and unavoidable even with implementation of mitigation measures.

Biological Resources

Cumulative impacts regarding Biological Resources are discussed in Chapter 5.2 of this Draft EIR. Impact 5.2-12 concluded that the cumulative loss of biological resources in the City of Sacramento and the effects of ongoing urbanization in the region would result in a potentially significant impact without implementation of mitigation measures. However, mitigation measures are included that would reduce the impact to a less than significant level.

Cultural Resources

Cumulative impacts regarding Cultural Resources are discussed in Chapter 5.3 of this Draft EIR. Impact 5.3-2 states that buildout of approved and planned uses within the City has the potential to uncover previously unknown resources and that increased population and intensified land use patterns associated with cumulative growth could increase the potential for vandalism and/or inadvertent destruction of such resources. Therefore, the Impact 5.3-2 concluded that the disturbance or destruction of previously unknown archaeological resources in combination with other development in the Sacramento area would result in a potentially significant impact. However, mitigation is included that would reduce this impact to a less than significant level.

Transportation and Circulation

Cumulative impacts regarding transportation and circulation are discussed in Chapter 5.10 of this Draft EIR.

Cumulative Plus Project

Impact 5.10-20 determined that the project would result in significant impacts under cumulative plus project conditions at the following intersections: South Watt Avenue and Jackson Road; Howe Avenue / Power Inn Road and Folsom Boulevard; Power Inn Road and 14th Avenue; Jackson Road and Folsom Boulevard; Florin Perkins Road and Folsom Boulevard; Florin Perkins Road and Kiefer Boulevard; Watt Avenue and US 50 Westbound Ramps; and Jackson Road and 14th Avenue. With implementation of mitigation measures, impacts would be reduced

to less than significant levels except for the South Watt Avenue and Jackson Road, Howe Avenue / Power Inn Road and Folsom Boulevard, and Watt Avenue and US 50 Westbound Ramps intersections, which would remain significant and unavoidable.

As determined in Impact 5.10-21, significant impacts would occur under cumulative plus project conditions along South Watt Avenue from Jackson Road to Fruitridge Road and along Jackson Road from 14th Avenue to South Watt Avenue due to increased traffic volumes. Even with implementation of mitigation measures, these impacts would remain significant and unavoidable.

Impact 5.10-22 determined that the project would result in significant impacts under cumulative plus project conditions at the following freeway mainline segments due to increases in traffic volumes:

- Eastbound US 50 - 65th Street to Howe Avenue - a.m. peak hour;
- Eastbound US 50 - Watt Avenue to Bradshaw Road - a.m. and p.m. peak hours;
- Westbound US 50 - Bradshaw Road to Watt Avenue - p.m. peak hour; and
- Westbound US 50 - Howe Avenue to 65th Street - a.m. peak hour.

Feasible mitigation does not exist to reduce these impacts; thus, the impacts would remain significant and unavoidable.

According to Impact 5.10-23, the project would result in significant impacts under cumulative plus project conditions at the following freeway ramp junctions due to increases in traffic volumes:

- Eastbound US 50 - 65th Street Exit - a.m. and p.m. peak hours;
- Eastbound US 50 - 65th Street Loop Entrance - a.m. peak hour;
- Eastbound US 50 - Watt Avenue Slip Entrance - a.m. and p.m. peak hours;
- Westbound US 50 - Watt Avenue Exit - p.m. peak hour; and
- Westbound US 50 - 65th Street Slip Entrance - a.m. peak hour.

Feasible mitigation does not exist to reduce these impacts; thus, the impacts would remain significant and unavoidable.

Impact 5.10-25 states that both eastbound and westbound freeway exit ramps to Howe Avenue under cumulative plus project conditions would exceed the available storage space during peak periods, which is considered a significant impact. Feasible mitigation does not exist to reduce the impact; thus, the impact would remain significant and unavoidable.

Cumulative Plus No School Alternative

In addition to Cumulative Plus Project conditions, a cumulative plus no school alternative was analyzed in the Transportation and Circulation chapter as well. Below are brief descriptions of significant impacts under this alternative condition.

Impact 5.10-28 determined that the proposed project would result in significant impacts under cumulative plus no school alternative conditions at the following intersections:

- South Watt Avenue and Jackson Road, which would remain significant and unavoidable even with implementation of mitigation measures;
- Power Inn Road and 14th Avenue, which would be reduced to a less than significant level with implementation of mitigation measures;
- Florin Perkins Road and Folsom Boulevard, which would be reduced to a less than significant level with implementation of mitigation measures;
- Florin Perkins Road and Kiefer Boulevard, which would be reduced to a less than significant level with implementation of mitigation measures;
- Watt Avenue and US 50 Westbound Ramps, which would remain significant and unavoidable even with implementation of mitigation measures; and
- Jackson Road and 14th Avenue, which would be reduced to a less than significant level with implementation of mitigation measures.

As determined in Impact 5.10-29, significant impacts would occur under cumulative plus no school alternative conditions along South Watt Avenue from Jackson Road to Fruitridge Road and Jackson Road from 14th Avenue to South Watt Avenue due to increased traffic volumes. Even with implementation of mitigation measures, these impacts would remain significant and unavoidable.

Impact 5.10-30 determined that the project would result in significant impacts under cumulative plus no school alternative conditions at the following freeway mainline segments due to increases in traffic volumes:

- Eastbound US 50 - 65th Street to Howe Avenue - a.m. and p.m. peak hours;
- Eastbound US 50 - Watt Avenue to Bradshaw Road - a.m. peak hour;
- Westbound US 50 - Bradshaw Road to Watt Avenue - p.m. peak hour; and
- Westbound US 50 - Howe Avenue to 65th Street - a.m. peak hour.

Feasible mitigation does not exist to reduce these impacts; thus, the impacts would remain significant and unavoidable.

According to Impact 5.10-31, the project would result in significant impacts under cumulative plus no school alternative conditions at the following freeway ramp junctions due to increases in traffic volumes:

- Eastbound US 50 - 65th Street Exit - a.m. and p.m. peak hours;
- Eastbound US 50 - 65th Street Loop Entrance - a.m. peak hour;
- Eastbound US 50 - Watt Avenue Slip Entrance - a.m. and p.m. peak hours;
- Westbound US 50 - Watt Avenue Exit - p.m. peak hour; and
- Westbound US 50 - 65th Street Slip Entrance - a.m. peak hour.

Feasible mitigation does not exist to reduce these impacts; thus, the impacts would remain significant and unavoidable.

Impact 5.10-33 states that both eastbound and westbound freeway exit ramps to Howe Avenue under the cumulative plus no school alternative conditions would exceed the available storage space during peak periods, which is considered a significant impact. Feasible mitigation does not exist to reduce the impact; thus, the impact would remain significant and unavoidable.

7.4 IRREVERSIBLE (UNAVOIDABLE) ENVIRONMENTAL IMPACTS

The CEQA Guidelines mandate that an EIR address any significant irreversible environmental changes that would be involved in the proposed action, should the action be implemented (CEQA Guidelines, Section 15126.2 [c]). An impact would fall into this category if:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves a wasteful use of energy).

Determining whether the proposed project would result in significant irreversible environmental changes requires a determination of whether key resources, such as agricultural, biological, cultural and historical resources, would be degraded or destroyed such that there would be little possibility of restoring them. Based on the analyses presented in the previous technical chapters of this Draft EIR, a significant irreversible environmental impact meeting the criteria in the list above would not result from development of the proposed project.

7.5 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

According to the CEQA Guidelines (Section 15126.2[b]), an EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented. Such impacts are unavoidable because it has been determined that either no mitigation, or only partial mitigation, is feasible without imposing an alternative design on the project.

Air Quality and Climate Change

The following impacts were determined to be significant: increases in PM₁₀ and PM_{2.5} concentrations during construction; increases in ROG and NO_x emissions during operation; and cumulative impacts related to an increase in ROG and NO_x emissions during operation. With implementation of mitigation measures, the impacts would be reduced, but not to levels below significance thresholds. Therefore, the impacts would remain significant and unavoidable. Impact 5.1-7 indicates that impacts related to the creation of objectionable odors would be significant, as the project would expose new residents to existing odor sources associated with the existing Teichert Perkins plant. Feasible mitigation does not exist to reduce the impact; thus, impacts related to objectionable odor would remain significant and unavoidable.

Hydrology and Water Quality

Implementation of Mitigation Measure 5.6-4, which would result in the removal of the site from an SFHA prior to development, could result in physical effects on the environment. Construction related to new levees or levee improvements could require substantial off-site ground disturbing activities within Sacramento County and such ground disturbing activities could potentially result

in impacts related to air quality, biological resources, cultural resources, erosion and stormwater runoff, and/or noise. Similar potential impacts could result from closure of the tunnel connections between mines areas and Morrison Creek, as well as various other engineering methods for flood protection. Consequently, removal of the project site from a FEMA SFHA would potentially result in a significant environmental impact. Because the specific projects required in order to remove the site from a FEMA SFHA have not been identified and certainty cannot be given that the environmental effects of such projects would be less-than-significant, the impact would remain significant and unavoidable.

Noise and Vibration

It was determined that impacts related to existing noise sources within the project area (i.e., the existing operations at the Teichert Perkins facility) would be significant. Existing operations at the Teichert Perkins facility, including the ongoing operation of the aggregate conveyor belt, would result in noise levels that exceed the City's threshold for acceptable exterior or interior noise levels. Mitigation measures would need to be implemented at the Teichert Perkins facility in order to reduce Teichert-generated noise levels to a state of compliance with City of Sacramento noise ordinance standards. Therefore, the project's impact would be significant and unavoidable.

Transportation and Circulation

Impacts related to the following would remain significant and unavoidable, even with implementation of mitigation measures, due to increases in traffic volumes: cumulative impacts at the South Watt Avenue and Jackson Road intersection; cumulative impacts at the Howe Avenue / Power Inn Road and Folsom Boulevard intersection; cumulative impacts at the Watt Avenue and US 50 Westbound Ramp; and cumulative impacts on Jackson Road from 14th Avenue to South Watt Avenue.

In addition, because feasible mitigation does not exist to reduce the following impacts to less than significant levels, the impacts would remain significant and unavoidable: increase in traffic volumes at the South Watt Avenue and Folsom Boulevard intersection; cumulative impacts on South Watt Avenue from Jackson Road to Fruitridge Road; cumulative impacts on segments of the freeway mainline; cumulative impacts at freeway ramp junctions with 65th Street and Watt Avenue; and cumulative impacts related to both eastbound and westbound freeway exit ramps to Howe Avenue.

8. PROJECT ALTERNATIVES

8

PROJECT ALTERNATIVES

8.0 INTRODUCTION

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the California Environmental Quality Act (CEQA) Guidelines, is to “[...] describe a range of reasonable alternatives to the project, or to the location of the project, which 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, and evaluate the comparative merits of the alternatives.” Furthermore, Section 15126.6(f) states, “The range of alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.”

The CEQA Guidelines provide the following guidance for discussing alternatives to a proposed project:

- An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which 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, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6[a]).
- Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CEQA Guidelines Section 15126.6[b]).
- The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination [...] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6[c]).

- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison (CEQA Guidelines Section 15126.6[d]).
- The specific alternative of “no project” shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decisionmakers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project’s environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (CEQA Guidelines Section 15126.6[e][1]).
- If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

In addition, Section 15126.6(d) of the CEQA Guidelines states, “If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.”

8.1 PURPOSE OF ALTERNATIVES

The requirement that an EIR evaluate alternatives to the proposed project or alternatives to the location of the proposed project is a broad requirement. The primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts associated with the proposed project. Alternatives that are included and evaluated in this EIR must be feasible alternatives. The CEQA Guidelines provides the definition for “a range of reasonable alternatives” and, thus, limits the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines Section 15126.6(f), “[...] the alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.” In addition, alternatives must be feasible. Section 15126.6(f)(1) defines feasible as “[...] ‘capable’ of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”

Additionally, factors such as site suitability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and site accessibility and control should also be considered and evaluated in the assessment of the feasibility of alternatives. Finally, CEQA Guidelines Section 15126.6(f)(3) indicates that an EIR is not required to analyze an alternative “[...] whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.”

The following project objectives have been identified by the applicant:

1. Utilize a mix of iconic architecture, civic spaces, small neighborhood-serving retail, scale and massing in order to facilitate the transition of a former aggregate mining area into a vibrant mixed use community which embodies the smart growth principles within the City of Sacramento.
2. Provide needed housing in the Highway 50 corridor.
3. Provide a residential base for existing and future employment centers in nearby proximity, thus contributing to a reduction in vehicle miles traveled.
4. Establish a unique development pattern incorporating an urban farm and recreational facilities as its primary civic amenity to encourage outdoor recreation, education, and a sense of community centered on the farm complex.
5. Provide affordable housing as required by the City of Sacramento Inclusionary Housing Program.
6. Provide commercial uses adjacent to a major regional thoroughfare and employment hub.
7. Establish multi-modal forms of transit by encouraging pedestrian activity and connections to transit by providing open space, trails, transit ready medians, and residential housing in proximity to recreational and commercial opportunities within the Plan Area.
8. Promote good planning practice by providing much needed housing opportunities on an infill/reuse site, adjacent to existing services and close to existing employment and public services such as schools, post office, and future neighborhood commercial.

The project alternatives need to feasibly attain most of the basic objectives of the project, but avoid or substantially lessen any of the significant effects of the project.

8.2 ALTERNATIVES CONSIDERED BUT DISMISSED FROM FURTHER CONSIDERATION

The following section describes the alternatives considered but dismissed from further analysis in this EIR. The following three alternatives were considered by dismissed:

On-Site Detention Alternative

The On-Site Detention Alternative would include the development of an on-site detention basin. The detention basin would replace the Urban Farm portion of the site. Similar to the proposed project, the On-Site Detention Alternative would include 133.5 acres of land designated Single-Family Residential located in the northwest, center, and southeast portions of the project site (including 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential) and 43.1 acres of land designated Multi-Family Residential/Mixed Use located in the central and southern portions of the project site. The project would include the following additional uses: 13.1 acres of land designated Shopping Center located in the northeast portion of the site; 14.4 acres of land designated Parks/Open

Space in three separate areas throughout the project site; and 28.2 acres of land designated Urban Farm in the southwest portion of the project site. It should be noted that 32.3 acres of land designated Open Space/Park in the southwest portion of the project site would serve as an on-site detention basin. Similar to the proposed project, the On-Site Detention Alternative would require a rezone of the site from Heavy Industrial (M-2S and M-2S-R) to commercial and residential Special Planning District and Planned Unit Development.

It should be noted that, by definition, CEQA states that an alternative should avoid or substantially lessen one or more of the environmental effects of the project. The On-Site Detention Alternative would encompass the same amount of acreage, commercial square-footage, and a similar amount of residential units as the proposed project. Although potential impacts related to utilizing an off-site basin and conveyance infrastructure (as with the proposed project) would not occur under this alternative, such impacts were already determined to be less than significant, with implementation of mitigation measures where necessary. Thus, the On-Site Detention Alternative would likely result in similar impacts related to hydrology, water quality, and drainage as the proposed project. Consequently, the Alternative would result in overall similar impacts and would not be expected to reduce any significant impacts as compared to the proposed project. As a result, the On-Site Detention Alternative would not be considered an environmentally feasible alternative that would meet the requirements of CEQA.

Existing General Plan without Annexation Alternative

Under the Existing General Plan without Annexation Alternative, the 202.8-acre site would be build out pursuant to the existing General Plan land use designations of Suburban Center and Traditional Neighborhood Medium Density (See Table 8-1). It should be noted that the Existing General Plan without Annexation Alternative would not include annexation of the 29.5-acre Special Study Area west of South Watt Avenue. Similar to the proposed project, the Existing General Plan without Annexation Alternative would require a rezone to be consistent with the existing General Plan land use designations. The site is currently zoned Heavy Industrial (M-2S and M-2S-R), which allows for the “manufacturer or treatment of goods from raw materials” and continued mining operations.

Table 8-1				
Existing General Plan without Annexation				
Land Use Area	Acreage	Net Acres	Residential (units)	Commercial (sq. feet)
Suburban Center (15-36 units/acre), (0.25-2.0 FAR)	7.5	5.3	21	94,000
Traditional Neighborhood Medium Density (8-21 units/acre)	195.3	115	1,150	N/A
Total	202.8	120.3	1,171	94,000

Buildout of the Existing General Plan without Annexation Alternative would still result in development of the project area, but would not include a variety of Low Density, Medium Density, and High Density residential uses. In addition, this alternative would not include the development of a school or urban farm. Similar to the On-Site Detention Alternative discussed above, the Existing General Plan without Annexation Alternative would result in similar impacts and would not be expected to reduce any significant impacts as compared to the proposed

project. Therefore, the Alternative would not be considered an environmentally feasible alternative that would meet the requirements of CEQA nor meet the basic objectives of the proposed project.

Increased Density Alternative

Under the Reduced Density Alternative the site would be built out pursuant to the maximum density allowable under the existing designations, which are Suburban Center and Traditional Neighborhood Medium Density General Plan land uses. The Increased Density Alternative would include the development of approximately 3,103 residential units and 1,080,000 square feet of commercial uses, approximately 1,738 more residential units and 858,000 more square feet of commercial uses than the proposed project (See Table 8-2). The site is zoned Heavy Industrial (M-2S and M-2S-R), which allows for the “manufacturer or treatment of goods from raw materials” and continued mining operations. Similar to the proposed project, the Increased Density Alternative would include annexation of the 29.5-acre Special Study Area west of South Watt Avenue. The Increased Density Alternative would require a rezone of a majority of the site to be consistent with the existing General Plan land use designations and rezoning of the annexation area.

Table 8-2 Increased Density Alternative				
Land Use Area	Acreage	Net Acres	Residential (units)	Commercial (sq. feet)
Suburban Center (15-36 units/acre), (0.25-2.0 FAR)	17.4	12.4	446	1,080,000
Traditional Neighborhood Medium Density (8-21 units/acre)	214.9	126.5	2,657	N/A
Total	232.3	138.9	3,103	1,080,000

Although the Increased Density Alternative would require less acreage for residential uses at a higher density than the proposed project, which allows for improved pedestrian and bicycle connections, the alternative would also cause concentrated areas of high traffic, noise, air pollutants, and other related environmental issues. Therefore, the Alternative’s overall impacts would be similar, and would not be expected to reduce any significant impacts, as compared to the proposed project. Consequently, the Increased Density Alternative would not be considered an environmentally feasible alternative that would meet the requirements of CEQA.

8.3 ALTERNATIVES CONSIDERED IN THIS EIR

For this EIR, the following alternatives considered include the following:

- No Project/No Build Alternative;
- Reduced Density Alternative; and
- Off-Site Alternative.

Table 8-4, at the end of the chapter, summarizes the level of significance of the impacts for the proposed project and each of the project alternatives.

No Project/No Build Alternative

Section 15126.6 (e)(1) of the State CEQA Guidelines requires that a “no project alternative” be evaluated in comparison to the proposed project. The No Project/No Build Alternative is defined in this section as the continuation of the existing condition of the project site. The No Project/No Build Alternative would allow the project site to continue as a former aggregate mining site utilized primarily for wash ponds, dryings beds, a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins plant, and an electrical transmission line.

Land Use, Population, and Housing

The No Project/No Build Alternative would maintain the existing condition of the project site, which consists of a former aggregate mining site. Although the Alternative would be consistent with the site’s current zoning of Heavy Industrial (M-2S-SWR and M-2S-R-SWR), the existing conditions are not consistent with the current General Plan designations for the site, which are Traditional Neighborhood and Commercial Center. Thus, an inconsistency with the General Plan land use designations would occur. Although the No Project/No Build Alternative would not result in additional population or housing in the area as opposed to the proposed project, due to the current designations for the site, the site would likely eventually be developed similar to the proposed project. In addition, because the Alternative would not result in any significant impacts to population and housing, and because the proposed project was determined to result in less than significant impacts related to population growth and housing, similar impacts would occur. As a result, the overall impacts to land use, population, and housing under the No Project/No Build Alternative would be slightly greater than that of the proposed project.

Air Quality and Climate Change

Under the No Project/No Build Alternative the existing air quality conditions would remain, as the site would not experience increased levels of emissions from construction and motor vehicles. Therefore, the No Project/No Build Alternative would result in fewer impacts to air quality than the proposed project.

Biological Resources

The No Project/No Build Alternative would not result in changes to the current state of the project site. Biological resources potentially exist on the project site, but these resources have been highly disturbed as a result of former aggregate mining on-site. Because the project site has been disturbed, the potential habitat for special-status plant and wildlife species occurring on-site is minimal. However, under the No Project/No Build Alternative, new construction would not occur, and any on- or off-site habitats, species, trees, or other biological resources would not be affected. Therefore, the No Project/No Build Alternative would result in fewer impacts to biological resources.

Cultural Resources

The No Project/No Build Alternative would maintain the existing condition of the project site and would not involve any new development or construction activities. Therefore, impacts to cultural resources located on or within the project vicinity would not occur under the No Project/No Build Alternative. Consequently, the Alternative would result in fewer impacts to cultural resources than the proposed project.

Geology, Soils, and Mineral Resources

The No Project/No Build Alternative would eliminate potential grading and construction impacts associated with development of the proposed project, and the site would remain as a former aggregate mining site. Therefore, the No Project/No Build Alternative's impacts related to geology, soils, and mineral resources would be fewer than those of the proposed project.

Hazards and Hazardous Materials

The No Project/No Build Alternative would not result in the placement of sensitive receptors on the proposed project area, which currently consists of wash ponds, drying beds, a conveyor belt system, and an electrical transmission line associated with the former on-site aggregate mine. Development of additional uses would occur; thus, new potential hazards and/or hazardous materials would not be introduced to the area. Therefore, the No Project/No Build Alternative would have fewer impacts related to Hazards and Hazardous Materials than the proposed project.

Hydrology, Water Quality, and Drainage

The No Project/No Build Alternative would maintain the existing condition of the project site, which consists of a former aggregate mining site and includes wash ponds, drying beds, a conveyor belt system, and an electrical transmission line. New development would not occur; thus, an increase in the potential for a violation of water quality standards or waste discharge requirements would not occur. In addition, the existing drainage patterns in the project area would not change and groundwater recharge would not be affected. Therefore, the No Project/No Build Alternative would result in fewer impacts to hydrology, water quality, and drainage than the proposed project.

Noise and Vibration

Under the No Project/No Build Alternative the existing conditions on the project site would remain. As a result, the Alternative would not introduce new sensitive receptors to the area nor new sources of noise and vibration. In addition, the Alternative would eliminate potential noise impacts to nearby sensitive receptors because construction and operation of the proposed project would not occur. Therefore, the No Project/No Build Alternative would result in fewer impacts related to noise and vibration than the proposed project.

Parks and Recreation

The No Project/No Build Alternative would maintain the existing conditions of the project site, which is a former aggregate mining site. Because the Alternative would not increase the population of the area, additional demand and/or use of local parks and recreation areas would not occur under the No Project/No Build Alternative. However, as opposed to the proposed project, the No Project/No Build Alternative does not include park or open space land uses. Thus, the proposed project would provide an amenity to the surrounding neighborhoods that would not be available under the No Project/No Build Alternative. As a result, because demand and/or use of existing parks and recreation areas in the area would not increase but the Alternative would not offer park or open space uses, the overall impacts related to parks and recreation of the No Project/No Build Alternative would be equal to the proposed project.

Public Services

The No Project/No Build Alternative would not result in the introduction of new residents to the City of Sacramento. Therefore, unlike the proposed project, the No Project/No Build Alternative would not create an increased need for public services, such as law enforcement, fire protection and life-safety services, schools, and libraries. As a result, the No Project/No Build Alternative would have fewer impacts to public services compared to the proposed project.

Transportation and Circulation

The No Project/No Build Alternative would maintain existing conditions on the project site. An increase in vehicle trips in the area would not occur due to the No Project/No Build Alternative; thus, traffic and circulation patterns in the area would not increase or degrade as a result of the Alternative. Therefore, the No Project/No Build Alternative would result in fewer impacts to transportation and circulation than the proposed project.

Urban Design and Visual Resources

The No Project/No Build Alternative would maintain the existing conditions at the project site, which includes wash ponds, dryings beds, a conveyor belt system, and an electrical transmission line. New sources of light and glare would not be introduced to the site and visual resources on the site and surrounding areas would not change. However, it should be noted that because the proposed project would be designed to use topography and landscaping to enhance the visual character of the site, the consideration can be made that the proposed project would be a visual improvement over the existing conditions. Overall, the No Project/No Build Alternative would result in fewer impacts related to urban design and visual resources.

Utilities, Service Systems, and Energy

Under the No Project/No Build Alternative, the existing conditions on the project site, which currently consists of wash ponds, dryings beds, a conveyor belt system, and an electrical transmission line associated with the former on-site aggregate mine, would remain. New residences would not be introduced to the City of Sacramento as a result of the No Project/No Build Alternative. Consequently, unlike the proposed project, the No Project/No Build Alternative would not create an increased need for utilities, service systems, and energy. Therefore, the No Project/No Build Alternative would have fewer impacts to utilities, service systems, and energy compared to the proposed project.

Reorganization

The No Project/No Build Alternative would maintain the existing conditions of the project site. As such, annexation of the Special Study Area would not occur under this Alternative. Therefore, impacts related to reorganization of the site would not occur, and impacts of the No Project/No Build Alternative would be fewer than that of the proposed project.

Reduced Density Alternative

Under the Reduced Density Alternative the site would be built out pursuant to the minimum density allowable under the existing designations, which are Suburban Center and Traditional Neighborhood Medium Density General Plan land uses. The Reduced Density Alternative would

include the development of approximately 1,198 residential units and 135,000 square feet of commercial uses, which is approximately 167 fewer residential units and 87,000 fewer square feet of commercial uses than the proposed project (See Table 8-3). The site is zoned Heavy Industrial (M-2S-SWR and M-2S-R-SWR), which allows for the “manufacturer or treatment of goods from raw materials” and continued mining operations. Similar to the proposed project, this alternative would include annexation of the 29.5-acre Special Study Area west of South Watt Avenue. The Reduced Density Alternative would require a rezone of a majority of the site to be consistent with the existing General Plan land use designations and rezoning of the annexation area.

Land Use, Population, and Housing

The Reduced Density Alternative would reduce the number of residential units to the minimum amount anticipated by the General Plan. Thus, although housing and population would decrease compared to the proposed project, the amount would still be consistent with what was anticipated in the General Plan. Similar to the proposed project, the Reduced Density Alternative would require a rezone of the majority of the site and a prezone of the annexation area in order to be consistent with the General Plan land use designations. Therefore, the Reduced Density Alternative would have similar or fewer impacts related to land use, population, and housing.

Land Use Area	Acreage	Net Acres	Residential (units)	Commercial (sq. feet)
Suburban Center (15-36 units/acre), (0.25-2.0 FAR)	17.4	12.4	186	135,000
Traditional Neighborhood Medium Density (8-21 units/acre)	214.9	126.5	1,012	N/A
Total	232.3	138.9	1,198	135,000

Air Quality and Climate Change

The Reduced Density Alternative would reduce the amount of land used for commercial purposes and the population in the area by reducing the number of residential units. Consequently, the number of people living and working within the area would be reduced compared to the proposed project, which would result in less vehicle trips associated with the Alternative. The reduction in vehicle trips would reduce the amount of project-related emissions of criteria air pollutants as well as greenhouse gas (GHG) in the area. Therefore, the Reduced Density Alternative would result in fewer air quality and climate change impacts than the proposed project. However, because the Reduced Density Alternative would be located on the same site as the proposed project and would disturb the same amount of acreage, impacts related to construction emissions and exposure of new residents to existing odor sources related to the Teichert Perkins plant would be expected to be similar. Consequently, significant and unavoidable impacts would still be expected to occur under the Reduced Density Alternative.

Biological Resources

Although the Reduced Density Alternative would decrease the total number of residential units and the amount of commercial development within the project area, the total acreage to be disturbed would remain the same as the proposed project. The existing on-site mining-related features, such as ponds, drying beds, reclaimed agricultural fields, ditches, and grassland, would still be converted to urban uses. The Reduced Density Alternative and the proposed project would create potential impacts to waters of the State; vernal pool crustacean habitat; Swainson's hawk foraging habitat and nests; burrowing owl habitat; tricolored blackbird foraging habitat; active raptor nest trees; and a cumulative loss of biological resources in the City of Sacramento. Therefore, under the Reduced Density Alternative, impacts to biological resources would be equal to impacts created by the proposed project.

Cultural Resources

Although the Reduced Density Alternative would decrease the total number of residential units and the amount of commercial development within the project area, the Reduced Density Alternative would involve the development of the same number of acres as the proposed project. Thus, the Alternative would have the same potential to uncover unknown and undiscovered cultural resources within the project area, and impacts to cultural resources would be equal to impacts created by the proposed project.

Geology, Soils, and Mineral Resources

The Reduced Density Alternative would reduce the number of residential units and the overall square-footage of commercial uses as compared to the proposed project. However, the Alternative would still entail buildout of the entire 232.3-acre site, which would require surface grading, cuts, and fills associated with development of commercial uses, residences, and related infrastructure. Therefore, the overall geological impacts would be similar to those of the proposed project.

Hazards and Hazardous Materials

The Reduced Density Alternative would result in development of the 232.3-acre project site with similar land uses as those of the proposed project. Similar to the proposed project, operation of residential and commercial uses could include the uses and transportation of small amounts of hazardous material. In addition, the Alternative has the same potential as the proposed project to be affected by the existing high voltage power lines and towers. The Reduced Density Alternative would not be expected to result in any significant design changes that would have an effect on the hazards and hazardous materials impacts identified for the proposed project. Therefore, the impacts related to hazards and hazardous materials would be similar to those expected for the proposed project.

Hydrology, Water Quality, and Drainage

Under the Reduced Density Alternative, the project site would be developed with a fewer number of residences and fewer square-footage of commercial uses. The residences would likely have larger yards and the commercial uses would require less large paved parking areas. Therefore, the Reduced Density Alternative would likely result in less impervious surfaces such as roofs and pavement. As a result, the amount of stormwater runoff attributed to impervious

surfaces would be less than the proposed project, and would require reduced need for the level of drainage provisions set forth by the proposed project. Therefore, impacts related to hydrology, water quality, and drainage of the Reduced Density Alternative would be fewer than the proposed project.

Noise and Vibration

As stated previously, the Reduced Density Alternative would reduce the vehicle trips in the area as compared to the proposed project. As a result, noise associated with vehicles on area roadways would be expected to be reduced as well. Commercial uses typically include noise-generating components such as truck deliveries, mechanical ventilation, and parking lot movements. Because the Reduced Density Alternative would reduce the square-footage of commercial land uses, noise levels associated with commercial uses would be expected to be reduced from that of the proposed project as well. Therefore, the overall impacts related to noise and vibration of the Reduced Density Alternative would be fewer than those of the proposed project. However, significant and unavoidable impacts would likely remain.

Parks and Recreation

The Reduced Density Alternative would result in a reduction in the number of residential units on the project site as compared to the proposed project. The reduction of 167 residential units would be expected to result in less usage and demand for local parks and open space. In addition, the reduced square-footage for commercial land uses would allow for an increase in open space in the project area. Therefore, the impacts from development of the Reduced Density Alternative would be fewer than those of the proposed project.

Public Services

The Reduced Density Alternative would result in a reduction in the number of residential units on the project site. The reduction of 167 residential units would be expected to result in less of a demand on public services, including law enforcement, fire protection and life-safety services, schools, and libraries, in the area than the proposed project. Therefore, the impacts related to public services would be fewer under the Reduced Density Alternative than the proposed project.

Transportation and Circulation

The Reduced Density Alternative would reduce the amount of land used for commercial purposes and the population in the area by reducing the number of residential units. Consequently, the number of people living and working within the area would be reduced compared to the proposed project, which would result in less vehicle trips associated with the Alternative. In addition, because commercial square-footage would be reduced, the number of truck trips associated with deliveries would reduce as well. As a result, implementation of the Reduced Density Alternative would result in fewer impacts related to transportation and circulation as compared to the proposed project. However, significant and unavoidable impacts would likely remain.

Urban Design and Visual Resources

Although the Reduced Density Alternative would reduce the number of residential units and commercial square-footage as compared to the proposed project, the Alternative would still result in development of the entire 232.2-acre area. The visual character of the project site would still be altered from existing mining operations to residential and commercial land uses. Because the Alternative would include similar land uses on the same amount of acreage as the proposed project, the addition of light and glare resulting from buildout of the project site under the Alternative would still impact the surrounding areas. Impacts related to scenic vistas and visual resources would be similar to the proposed project as well. Therefore, the effects of the Reduced Density Alternative would be similar to those of the proposed project.

Utilities, Service Systems, and Energy

The Reduced Density Alternative would result in a reduction of square-footage for commercial land uses and in the number of residential units on the project site. The reduction of 167 residences would be expected to result in less of a demand on water supply, wastewater treatment and collection, solid waste collection and disposal, electric power, and natural gas. In addition, the reduction of commercial land usage would result in similar reductions. Therefore, the overall impacts related to utilities, service systems, and energy under the Reduced Density Alternative would be fewer than that of the proposed project.

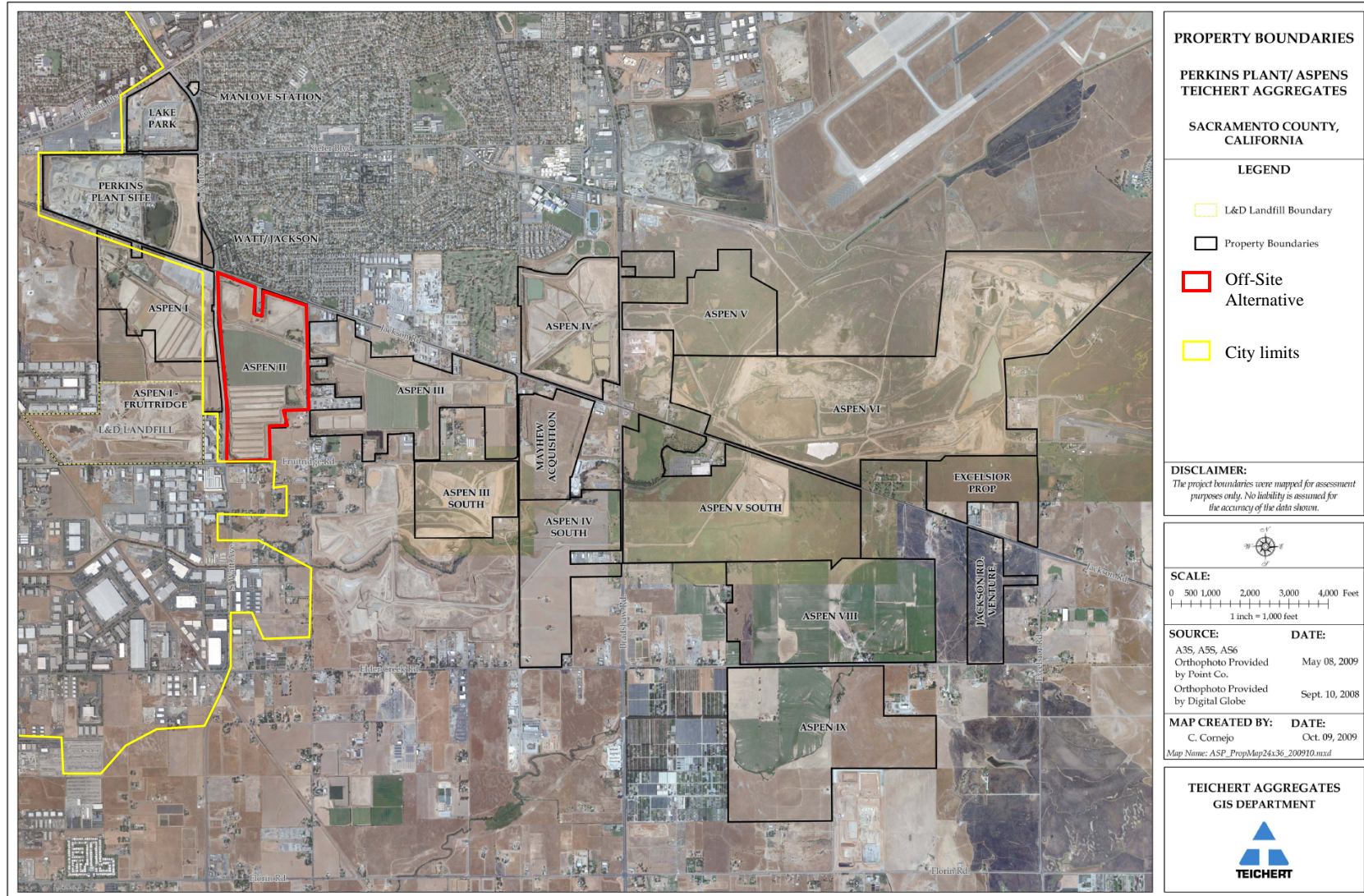
Reorganization

The Reduced Density Alternative consists of buildout of the proposed project under the minimum densities allowable under the proposed General Plan land use designations. Annexation of the 29.5-acre special Study Area would still be required under the Alternative; thus, impacts related to reorganization of the site would still occur. However, because the Reduced Density Alternative would result in a reduction in the number of residential units on the project site, less of a demand on public services, including those services to be reorganized, would be expected under the Alternative compared to the proposed project. Therefore, the overall impacts related to reorganization of the project site under the Reduced Density Alternative would be equal to those of the proposed project.

Off-Site Alternative

The Off-Site Alternative would involve the construction the same type and intensity of land uses as the proposed project on an alternative location. Properties in the area that are owned by the project applicant are displayed in Figure 8-1. As shown in the figure, most of the potential alternative locations are located outside of City limits and would not meet the majority of the project objectives. The Teichert Perkins plant and Lake Park properties to the north of the proposed project site could meet project objectives due to their proximity to transit options. However, the Teichert Perkins plant is an active sand and gravel processing and sales facility; thus, if the site were to be developed with the proposed project uses, the processing and sales facility would need to be relocated to another site. The Lake Park site is near transit options as well, but would not be able to provide the same amount of land uses as the proposed project due to the size of the property.

**Figure 8-1
 Off-Site Alternative**



As the Aspen II property is directly adjacent to the proposed project site to the east, is still in close proximity to transit, and is similar in size and existing land uses to the proposed project site, the Aspen II property would be considered the most feasible Off-Site Alternative and would generally meet the objectives of the project. Although annexation of the Aspen II property would be required, as the site is not currently within City limits, because the property is near the City's border, annexation of the property would not be expected to cause "islands" of unincorporated territory.

Land Use, Population, and Housing

The Off-Site Alternative would result in buildout of the same land uses and intensities as the proposed project, but in an alternative location. Consequently, the same population would be induced and the same amount of housing provided. However, because the whole of the Off-Site Alternative property is within the unincorporated area of the County, a major annexation compared to the proposed project would be required. In addition, the additional lands to the City and development of the site were not anticipated in the General Plan. For this reason, and because the Alternative location currently consists of similar land uses as the proposed project, a General Plan Amendment and rezone would still be required. Therefore, impacts related to land use, population, and housing would be greater than that of the proposed project.

Air Quality and Climate Change

Because the Off-Site Alternative would result in buildout of the same land uses and intensities as the proposed project, but on an alternative location, the same amount of vehicle trips would be generated and the same amount of acreage would be disturbed. Similar to the proposed project site, the Alternative site is still in close proximity to transit options. Thus, the Alternative would be expected to result in the same amount of project-related emissions of criteria air pollutants and GHGs, and similar impacts would occur. As such, significant and unavoidable impacts would still be expected to occur under the Off-Site Alternative. The Off-Site Alternative would be located at a site further away from the existing odor sources of the 23rd Avenue/Warehouse Way Industrial area and the L&D Landfill. Consequently, impacts related to exposure of new residents to existing odors would be less than that of the proposed project. Therefore, the overall impacts related to air quality and climate change under the Off-Site Alternative would be fewer than those of the proposed project. However, as stated above, significant and unavoidable impacts would still occur.

Biological Resources

The Off-Site Alternative would involve the construction of the proposed project on an alternative location, with the same type and intensity of land uses. Consequently, the same amount of acreage would be disturbed. As the Off-Site Alternative location is directly adjacent to the proposed project location and consists of similar land uses as what currently exists at the project site, impacts to biological resources, such as sensitive habitat, species, or trees, would be expected to be similar to the proposed project.

Cultural Resources

The Off-Site Alternative would involve the construction of the proposed project on an alternative location, with the same type and intensity of land uses. Because the Alternative location is in the vicinity of the proposed project site, the results of the records search, cultural resources

surveys, and Native American consultation for the project area would be applicable to the Off-Site Alternative as well. As such, the Alternative site would not be expected to have any recorded cultural resources, prehistoric or historic archaeological deposits, or Native American sites on-site or in the immediate vicinity. However, because the Alternative would disturb the same amount of acreage, the same potential to uncover unknown and undiscovered cultural resources within the project area exists. Overall, the Off-Site Alternative would result in similar impacts to cultural resources as the proposed project.

Geology, Soils, and Mineral Resources

The Off-Site Alternative would involve the disturbance of the same amount of acreage as the proposed project, but on an alternate location. In addition, the Alternative location is directly adjacent to the project site and consists of similar existing land uses. Consequently, impacts related to on-site soils, seismic hazards, erosion or unstable slope conditions, liquefaction, and mineral resources would be expected to be similar to those of the proposed project.

Hazards and Hazardous Materials

Buildout of the Off-Site Alternative would result in the disturbance of the same amount of acreage, but on an alternate location, with the same type and intensity of land uses as the proposed project. In addition, the Alternative location is directly adjacent to the project site and consists of similar existing land uses. Thus, potential on-site and/or nearby hazards would be similar to that of the proposed project. As a result, the overall impacts related to hazards and hazardous materials from implementation of the Off-Site Alternative would be similar to the proposed project's impacts.

Hydrology, Water Quality, and Drainage

Under the Off-Site Alternative, the proposed project would be developed on an alternate location. Therefore, the Alternative would result in the same amount of impervious surfaces such as roofs and pavement. As a result, the amount of stormwater runoff attributed to impervious surfaces would be similar to the proposed project, and would require similar need for the level of drainage provisions set forth by the proposed project. In addition, because the Alternative location is directly adjacent to the proposed project site, similar hydrology and water quality impacts would result, including impacts related to exposure of people and structures to flood hazards and impacts related to removal of the project site from a Federal Emergency Management Agency (FEMA) Special Flood Hazards Area (SFHA). Therefore, the overall impacts related to hydrology, water quality, and drainage of the Off-Site Alternative would be equal to those of the proposed project.

Noise and Vibration

Because the Off-Site Alternative would result in buildout of the proposed project on an alternative location, the same amount of vehicle trips would be generated and the same acreage would be required to be graded. Thus, the Alternative would generate similar traffic, construction, and operational noise levels. As the Alternative location is directly adjacent to the proposed project site, noise associated with the operation of the existing aggregate conveyor belt would be similar to the proposed project. However, because the Off-Site Alternative location is further from the Teichert Perkins plant, noise associated with existing operations at the facility would likely be reduced compared to the proposed project. It should be noted that a significant

and unavoidable impact would likely still result. Overall, the Off-Site Alternative's impacts related to noise and vibration would be expected to be slightly fewer than the proposed project's impacts.

Parks and Recreation

The Off-Site Alternative would involve the development of the proposed project, which includes a total of 14.5 acres of park and recreational areas and an additional 52.3 acres of open space and recreational areas, but on an alternate location. In addition, as the Alternative location is directly adjacent to the proposed project site, demand for and use of local parks and recreation facilities in the area would be similar to that of the proposed project. Therefore, the Off-Site Alternative would result in equal impacts as the proposed project related to parks and recreation.

Public Services

The Off-Site Alternative would involve the construction of the proposed project on an alternative location, with the same type and intensity of land uses. Thus, the same number of residential units would be developed and the same number of new residents to the area would be expected. Because the Alternative would require annexation into the City and the same amount of population to the City would be induced as the proposed project, the demand of public services within the City would be expected to be similar. Therefore, impacts related to public services under the Off-Site Alternative would be equal to the proposed project.

Transportation and Circulation

The Off-Site Alternative would result in the same type and intensity of land uses. Consequently, the number of people living and working within the area, thus the same generation of vehicle trips, would be similar compared to the proposed project. In addition, because the Off-Site Alternative location is directly adjacent to the proposed project site, the Alternative would have the same benefits of being in close proximity to transit options as the proposed project. For similar reasons, nearby roadways would be expected to be affected similarly to the proposed project. Therefore, impacts related to transportation and circulation would be equal to the proposed project. It should be noted that significant and unavoidable impacts would be expected to remain under the Off-Site Alternative.

Urban Design and Visual Resources

The Off-Site Alternative would result in buildout of the same land uses and intensities as the proposed project, but in an alternative location. As the existing visual character of the Off-Site Alternative location is similar to the project site, the visual character would still be altered from existing mining operations to residential, commercial, and urban farm uses. In addition, the change from an undeveloped property to a mixed-use development would generate new sources of light and glare similar to the proposed project such as parking lots, building lighting, and streetlights, which would increase the amount of light and glare into adjacent areas. In addition, similar to the proposed project, the Off-Site Alternative would be designed to use topographic features and landscaping according to *PUD Design Guidelines: Architectural Guidelines* and comply with General Plan goals and policies to minimize impacts to visual character. Therefore, overall, the Off-Site Alternative's impacts related to urban design and visual resources would be similar to the proposed project.

Utilities, Service Systems, and Energy

Under the Off-Site Alternative, the project site would be developed similar to the proposed project, but on an alternate location. The Alternative would require annexation of the site to the City. Consequently, the Off-Site Alternative would result in the same demand for local water supply, wastewater treatment and collection, solid waste collection and disposal, electric power, natural gas as the proposed project. Therefore, the Off-Site Alternative would result in equal impacts related to utilities, service systems, and energy as the proposed project.

Reorganization

Reorganization of the Off-Site Alternative site would still consist of detachment from the Sacramento Metropolitan Fire District, the Cordova Recreation and Park District, and the Cal-Am Water service. However, rather than only 29.5 acres, because the Off-Site Alternative site is currently located within the unincorporated area of the County, annexation of the entire site would be required. Annexation of the site would not likely be considered a logical boundary change, as, unlike the proposed project site, the Off-Site Alternative is not located within the existing boundaries of the City's Sphere of Influence. The same impacts related to utilities and service systems as the proposed project are expected under the Off-Site Alternative; thus, impacts related to detachment from the Sacramento Metropolitan Fire District and the Cordova Recreation and Park District would likely be similar to those of the proposed project. However, because a modification of the service boundaries of Cal-Am Water would be required for the entire site, impacts would likely increase from those of the proposed project. Therefore, the overall impacts related to reorganization of the site would be greater under the Off-Site Alternative as compared to the proposed project.

8.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In addition to the discussion and comparison of impacts of the alternatives to the proposed project, CEQA requires that an "environmentally superior" alternative be selected and the reasons for such selection disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least adverse impacts. CEQA requires that if the No Project Alternative is the environmentally superior alternative, an additional alternative that is environmentally superior must be identified.

Finally, it should be noted that environmental considerations are among other factors that must be considered by the public and the decision makers in deliberations on the proposed project and the alternatives. Other factors of importance include urban design, economics, social factors, and fiscal considerations.

The environmentally superior alternative must reduce the overall impact of the proposed project. The No Project/No Build Alternative would reduce impacts to nearly all environmental issue areas; where equal or greater impacts would occur related to parks and recreation and land use, population, and housing only (See Table 8-4). However, Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "[...] if the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

**Table 8-4
 Environmental Impacts of Proposed Project and Project Alternatives**

Environmental Issue	Proposed Project	No Project/No Build Alternative	Reduced Density Alternative	Off-Site Alternative
Land Use, Population, and Housing	Less Than Significant	Greater	Fewer	Greater
Air Quality and Climate Change	Significant and Unavoidable	Fewer	Fewer*	Fewer*
Biological Resources	Less Than Significant with Mitigation	Fewer	Equal	Equal
Cultural Resources	Less Than Significant with Mitigation	Fewer	Equal	Equal
Geology, Soils, and Mineral Resources	Less Than Significant with Mitigation	Fewer	Equal	Equal
Hazards and Hazardous Materials	Less Than Significant	Fewer	Equal	Equal
Hydrology, Water Quality, and Drainage	Significant and Unavoidable	Fewer	Fewer*	Equal*
Noise and Vibration	Significant and Unavoidable	Fewer	Fewer*	Fewer*
Parks and Recreation	Less Than Significant	Equal	Fewer	Equal
Public Services	Less Than Significant with Mitigation	Fewer	Fewer	Equal
Transportation and Circulation	Significant and Unavoidable	Fewer	Fewer*	Equal*
Urban Design and Visual Resources	Less Than Significant	Fewer	Equal	Equal
Utilities, Service Systems, and Energy	Less Than Significant with Mitigation	Fewer	Fewer	Equal
Reorganization	Less Than Significant	Fewer	Equal	Greater
Fewer = Fewer impacts than the proposed project Equal = Similar impacts to the proposed project Greater = More impacts than the proposed project *Significant and unavoidable impact determined for the proposed project would still be expected to occur.				

Of the other alternatives analyzed, the Reduced Density Alternative provides the greatest reduction in the level of environmental impacts while meeting the overall objectives of the project, such as providing needed housing in the Highway 50 corridor, providing commercial uses adjacent to a major regional thoroughfare and employment hub, and promoting good planning practices by providing housing on an infill/reuse site. By reducing the commercial uses and residential units, the Reduced Density Alternative would reduce impacts in the following areas: land use, population, and housing; air quality and climate change; hydrology, water quality, and drainage; noise and vibration; parks and recreation; public services; transportation and circulation; and utilities, service systems, and energy. However, it should be noted that impacts related to air quality and climate change, noise and vibration, transportation and circulation would be expected to remain significant and unavoidable. Therefore, the Reduced Density Alternative is the Environmentally Superior Alternative.

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APPENDIX A



COMMUNITY DEVELOPMENT
DEPARTMENT

CITY OF SACRAMENTO
CALIFORNIA

ENVIRONMENTAL PLANNING
SERVICES

**NOTICE OF PREPARATION FOR AN ENVIRONMENTAL IMPACT REPORT (EIR)
FOR THE ASPEN 1-NEW BRIGHTON PROJECT
NOTICE OF SCOPING MEETING**

Public Review Period: July 26, 2010 to August 24, 2010

Public Scoping Meeting: George Sim Community Center
6207 Logan Street
Sacramento, CA
Thursday, August 12, 2010 from 6:00 p.m. to 8:00 p.m.

The City of Sacramento, Community Development Department (Environmental Planning Services) will be the Lead Agency for the preparation of an Environmental Impact Report (EIR) for the Aspen 1-New Brighton project (proposed project). The California Environmental Quality Act (CEQA), Section 15082, states that once a decision is made to prepare an EIR, the lead agency must prepare a Notice of Preparation (NOP) to inform all responsible agencies of that decision. The purpose of the NOP is to provide responsible agencies and interested persons with sufficient information describing the proposed project and the project's potential environmental effects to enable them to make a meaningful response as to the scope and content of the information to be included in the EIR. The responses to this NOP will help the City of Sacramento determine the scope of the EIR and ensure an appropriate level of environmental review.

A public scoping meeting will be held from 6:00 to 8:00 PM on Thursday, August 12, 2010 at the George Sim Community Center. Responsible agencies and members of the public are invited to attend and provide input on the scope of the EIR. All interested parties are welcome to attend the scoping meeting.

The Proposed Project

The proposed project site is located at the southwest corner of Jackson Highway and South Watt Avenue in the City of Sacramento, with a small portion outside the city limits in the eastern portion of the project site (See attached Figure 1, Project Location). The project site encompasses approximately 232 acres and is identified by the following Sacramento County Assessor's Parcel Numbers (APNs): 078-0202-007, -010, and -013; 063-0014-002 and -006; 063-0053-001; 061-0150-003, -004, -015, -016, -027, and -028; and 061-0180-003, -017, and -025. The project site is a former aggregate mine site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins Plant. Uses surrounding the project site include the Teichert Perkins Plant to the north (an active sand and gravel processing and sales facility), the Teichert Aspen 2 property to the east (a former mine site similar to the project site), and the L&D Landfill to the south (a Class III facility limited to commercial waste and recycling).

The proposed project includes a Tentative Map that would establish parcels for residential, commercial, school, park, and urban farm uses. The project would include 59.1 acres of land designated Single-Family Residential located in three separate areas of the project site (northwest, center, and southeast portions) and 15.1 acres of land designated Multi-Family Residential located in two separate areas of the project site (northeast and southeast

portions). The project would include the following additional uses: 13.5 acres of land designated Residential Mixed-Use located in the central portion of the project site; 10.8 acres of land designated Shopping Center located in the northeast portion of the site; 34.4 acres of land designated Open Space/Park in five separate areas throughout the project site; 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential; and 23.8 acres of land designated Urban Farm in the southwest portion of the project site. The project would include a total of 1,365 dwelling units. Primary access routes into the project site would be from Jackson Highway on the north and South Watt Avenue on the east. It should be noted that the northwest portion of the project site would be designed to connect to 14th Avenue, which is planned (as part of the City's General Plan Update) for realignment and extension from Florin Perkins Road to Jackson Highway.

The project would include the construction of off-site infrastructure including water, sewer, and drainage improvements. The project would include the construction of water infrastructure to connect to existing water mains that are adjacent to project site via one of the following options: 1) A proposed 12-inch water main within South Watt Avenue, which would connect to a proposed 24-inch water main that would extend south to connect to an existing 12-inch water main within South Watt Avenue and north to connect to an existing 24-inch water main within Manlove Road, as well as an additional 24-inch water main within Folsom Boulevard that would connect to existing 24-inch water mains; 2) A proposed 12-inch water main within South Watt Avenue, which would connect to a proposed 24-inch water main that would extend north to Kiefer Boulevard, then run west along Kiefer Boulevard to connect to an existing 24-inch water main within Folsom Boulevard; or 3) A proposed 12-inch water main within South Watt Avenue that would connect to a proposed 24-inch water main within Jackson Highway and then extend west to connect to an existing 36-inch water main within Folsom Boulevard. Sewer infrastructure, within South Watt Avenue, would include a 15-inch sewer main that would connect to a new Sacramento Area Sewer District (SASD) sewer lift station and a 10-inch force main that would run from the proposed lift station to the existing central interceptor within Fruitridge Road. Sewer service would also be provided by the existing 72-inch force main within South Watt Avenue. Drainage infrastructure would include a trunk drainage line that would flow to a retention basin located south of Jackson Highway and east of Mayhew Road. The retention basin would be designed to accommodate approximately 300 acre-feet of water.

Project development would include demolition and removal of all trees and one approximately 20-year-old structure. The site is not known to contain other unique resources. The proposed project would include the stockpiling of up to 500,000 cubic yards of soil over the next 5 to 10 years. This soil will be used to raise the existing ground surface to improve the geotechnical stability of the site. Additional stability would be achieved to create an engineered soil base for the project improvements.

The City of Sacramento has discretionary authority and is the lead agency for the proposed project. The proposed project requires approval of the following entitlements by the City of Sacramento:

- General Plan Amendment to redesignate approximately 29.5 acres in the eastern portion of the site from Special Study Area to Traditional Neighborhood Medium (8-21 du/ac) and Suburban Center (15-36 du/ac with a FAR of 0.25-2.0). (The remaining approximately 203 acres of the site would retain the designations of Traditional Neighborhood Medium [8-21 du/ac] and Suburban Center [15-36 du/ac with a FAR of 0.25-2.0]);
- Rezone to redesignate the site from Heavy Industrial (M-2S and M-2S-R) to Single Family Residential (SFR-SPD-PUD), Multi-Family Residential (MFR-SPD-PUD), Residential Mixed-Use (RMU-SPD-PUD), Shopping Center (SC-SPD-PUD), Parks/Open Space (OSR-SPD-PUD), and Urban Farm (UF SPD PUD);
- Large Lot Tentative Subdivision Map;
- Tentative Subdivision Map and associated Subdivision Modifications (as detailed on the Tentative Map);
- PUD Establishment;
- Inclusionary Housing Plan;

- Prezone certain real property to Single Family Residential (SFR-SPD-PUD), Multi-Family Residential (MFR-SPD-PUD), Shopping Center (SC-SPD-PUD), Parks/Open Space (OSR-SPD-PUD);
- Reorganization/Annexation to City of Sacramento and Detachment from Sacramento Metropolitan Fire Department, Cal American Water Company, and Cordova Recreation and Park District); and
- Tax exchange agreement between the City and the County.

The EIR will evaluate the potential environmental impacts of the proposed project and recommend mitigation measures, as required. The EIR will provide a project-specific evaluation of the environmental effects of the proposed project, pursuant to Section 15161 of the CEQA Guidelines.

The City anticipates that the following technical areas will be addressed in the EIR to determine whether the project would result in any additional significant environmental effects: Urban Design and Visual Resources; Air Quality (including climate change and greenhouse gas emissions); Biological Resources; Cultural Resources; Geology, Soils and Mineral Resources; Hazards and Hazardous Materials; Noise; Parks and Recreation; Public Services; Transportation and Circulation; and Utilities and Service Systems. In addition, the EIR will address impacts related to Reorganization (Annexation and Related Detachments) consistent with Sacramento LAFCo Policy, Standards and Procedures Manual for annexation.

The EIR will include an analysis of project alternatives. The City has determined that the project was an anticipated future project in the Master EIR for the 2030 General Plan, and that the analysis of cumulative effects, growth-inducing effects and irreversible effects set forth in the Master EIR is adequate for the project. The 2030 General Plan is available at www.sacgp.org/. The Master EIR may be viewed at: <http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/>.

Comments on the Notice of Preparation

To ensure that the full range of issues related to this proposed project is addressed and that all significant issues are identified, written comments and suggestions concerning the scope of the proposed EIR are invited from all interested parties. Written comments must be received at the following address no later than **5:00 p.m. on August 24, 2010**.

Dana Allen, Associate Planner
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811
Phone: (916) 808-2762
Email: dallen@cityofsacramento.org

For questions regarding the project or the EIR process, please call Dana Allen at (916) 808-2762.

Figure 1
Project Site Location



APPENDIX B

DEPARTMENT OF TRANSPORTATION

DISTRICT 3 – SACRAMENTO AREA OFFICE

2800 GATEWAY OAKS DRIVE, MS 19

SACRAMENTO, CA 95833

PHONE (916) 274-0627

FAX (916) 263-1796

TTY 711

*Flex your power!
Be energy efficient!*

August 25, 2010

03-SAC-0032

Aspen 1-New Brighton Project

Notice of Preparation

SCH# 2010072058

Ms. Dana Allen

City of Sacramento, Community Development Department

Environmental Planning Services

300 Richards Blvd., 3rd Floor

Sacramento, CA 95811

Dear Ms. Allen:

Thank you for the opportunity to review the Notice of Preparation (NOP) for the Aspen 1-New Brighton project. The proposed project site is located at the southwest corner of State Route (SR) 16 (Jackson Highway) and South Watt Avenue in the City of Sacramento, with a small portion outside the city limits in the eastern portion of the project site. The project site encompasses approximately 232 acres. The project will include 59.1 acres of land designated Single-Family Residential; 15.1 acres of land designated Multi-Family Residential; 13.5 acres of land designated Residential Mixed-Use; 10.8 acres designated Shopping Center; 34.4 acres designated Open Space Park; 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential; and 23.8 acres of land designated Urban Farm. The project would include a total of 1,365 dwelling units. Primary access routes into the project site are SR 16 from the north and South Watt Avenue from the east.

- A Traffic Impact Study (TIS) should be completed and include an analysis of impacts to the State Highway System (SHS). The TIS should include State Route 16 and US Highway 50, at a minimum. The TIS should consider all possible traffic impacts to intersections and mainline segments. The "Guide for Preparation of Traffic Impact Studies" can be found on our website at: <http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/>. The TIS should use a Select Zone Analysis to identify trip distribution of the proposed project on the SHS. The study should include a directional peak-period analysis. A queuing analysis and merge/diverge analysis should be completed, especially where the highway facility is already at Level of Service F. We would appreciate the opportunity to review and comment on the scope of the TIS before the Study begins.
- Please include the following ramps, intersections, and freeway sections in the TIS. The mainline should include: SR 16/Folsom Blvd. between Power Inn Rd. and the SR

16/Folsom Blvd. split; SR 16 between the Folsom Blvd. split and Watt Ave. (both periods and directions); the freeway weave sections along US 50 between Bradshaw Rd. and Watt Ave.; the freeway weave sections along US 50 between 65th St. and Howe Ave./Power Inn Rd. The ramps analysis should include: all of the ramps at Howe Ave./Power Inn Rd. and Watt Ave.; the eastbound US 50 off-ramp slip and the westbound US 50 slip and loop on-ramps at 65th St. The intersection analysis should include: SR 16/Folsom Blvd. and Power Inn Rd.; Folsom Blvd. and Notre Dame Dr; Folsom Blvd. and Florin-Perkins Rd.; Kiefer Blvd. and Florin-Perkins Rd.; Florin Perkins Rd. and SR 16; South Watt Ave. and SR 16; Fruitridge Rd. and South Watt Ave.; the planned intersection at 14th Ave. and SR 16; and, any other proposed intersections that will intersect SR 16.

- Once the TIS assesses the project's impacts to the State Highway System, appropriate mitigation should be discussed with Caltrans. Feasible mitigation is available and may include fair share funding for planned transportation improvements such as mainline, ramp and intersection improvements, as well as off-highway improvements.
- An Encroachment Permit will be required for any work conducted in the State's right of way including highway improvements, sign placement, traffic control, light installation, culvert maintenance, drainage pattern changes, or sidewalk installation.
- As planned local development projects along SR 16 move forward, such as Aspen 1-New Brighton, the highway will be used primarily for local trips, rather than interregional trips. Caltrans and the County of Sacramento have begun in discussions regarding the relinquishment of State Route 16 which will necessarily involve the City of Sacramento and the City of Rancho Cordova. A Corridor Conceptual Plan is being scoped and includes an analysis of SR 16 from Grant Line Road to Folsom Boulevard evaluating existing and future traffic conditions, with primary focus on developing a cross-section and alignment for the future roadway.

Caltrans looks forward to conferring with the City of Sacramento as well as all other appropriate stakeholders. If you have any questions regarding these comments, please contact Larry Brohman at (916) 274-0627.

Sincerely,



ALYSSA BEGLEY, Chief
Office of Transportation Planning - South

Municipal Services Agency

Department of Transportation

Michael J. Penrose, Director



Steven Szalay, Interim County Executive
Paul J. Hahn, Agency Administrator

County of Sacramento

July 28, 2010

Ms. Dana Allen
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Blvd, 3rd Floor
Sacramento, CA 95811

SUBJECT: COMMENTS ON THE NOTICE OF PREPARATION FOR A DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR THE ASPEN 1 – NEW BRIGHTON PROJECT

Dear Ms. Allen:

The Sacramento County Department of Transportation (SACDOT) previously reviewed the project application for the Aspen 1 project and submitted a comment letter dated June 17, 2010. Please continue to refer to that letter. This comment letter on the Notice of Preparation is closely related to the comments previously made.

As you may be aware, this applicant is also in the process of submitting an application to the County for the New Brighton Project. SACDOT is familiar with the transportation and circulation challenges associated with the project. We appreciate the opportunity to review this application package and have the following comments to offer:

1. Typically, a project of this size would require a traffic study. Since this project is at the jurisdictional boundary, we would ask City staff to coordinate the traffic study of this project with SACDOT staff for scoping, study assumptions, trip generation/distribution, and feasible mitigation measure(s). We would like to be involved early on this process to avoid any conflicting comments later in this process. The City should make sure that all study intersections and roadway segments that may be impacted be studied regardless of jurisdiction. Of particular importance to the county is South Watt all the way north to US 50.
2. A few projects that this study should assume for cumulative base analysis are New Brighton in the County, Newbridge, the Mather Specific Plan, the Watt Avenue Corridor Plan, Cordova Hills, the North Vineyard Station Specific Plan, the Florin Vineyard Community Plan, the Vineyard Specific Plan and other projects in the City of Rancho Cordova. These pending projects will add significant traffic to Jackson Road (SR-16) and it would significantly alter the study outcome if not included in the analysis. Please work with County Planning staff to get the final list of projects and other relating information in the project vicinity.

“Leading the Way to Greater Mobility”



Design & Planning: 906 G Street, Suite 510, Sacramento, CA 95814 . Phone: 916-874-6291 . Fax: 916-874-7831
Operations & Maintenance: 4100 Traffic Way, Sacramento, CA 95827 . Phone: 916-875-5123 . Fax: 916-875-5363
www.sacdot.com

Ms. Dana Allen
July 28, 2010
Page 2

3. Sacramento County has identified the need for an urban interchange at South Watt Avenue and Jackson Road. Fehr and Peers Associates is in the early stages of doing a Jackson Road Planning Document (similar to a PSR) that will help define the Jackson Road Corridor as well as the footprint for the urban interchange at South Watt Avenue and Jackson Road. Right of Way at this intersection should be reserved based on this document. Jeff Clark at Fehr and Peers Associates is the project manager and can be reached at (916) 773 -1900.

4. It should be noted that the County is planning for a high level transit service, such as BRT, on South Watt Avenue and Jackson Road east of South Watt Avenue. Please take this into consideration in the DEIR.

Should you have any questions, please feel free to contact me at (916) 874-7052.

Sincerely,



Matthew Darrow
Senior Transportation Engineer
Department of Transportation

MGD

c: Dan Shoeman – DOT
Dean Blank – DOT
Kamal Atwal – DOT
Kyle Hines - DOT
Melissa Wright – DOT
Mary Ann Dan – County Engineering
Jeff Clark, Fehr & Peers [j.clark@fehrrandpeers.com]
Tricia Stevens - Planning



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10060 Goethe Road

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Sacramento Regional Wastewater

Treatment Plant

8521 Laguna Station Road

Elk Grove, CA 95758-9550

Tele: [916] 875-9000

Fax: [916] 875-9068

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District Engineer

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Director of Policy and Planning

Prabhakar Somavarapu
Director of Operations

Marcia Maurer
Chief Financial Officer

Claudia Goss
Director of Communications

September 9, 2010

Dana Allen
Associate Planner
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Blvd. 3rd Floor
Sacramento, CA 95811

Subject: Notice of Preparation of the Draft Environmental Impact Report and Public Meeting/Hearing on the Aspen 1 New Brighton Project

Dear Ms. Allen:

Sacramento Regional County Sanitation District (SRCSD) and the Sacramento Area Sewer District have received the Notice of Preparation of the Draft Environmental Impact Report and Public Meeting/Hearing on the Aspen 1 New Brighton project and have the following comments:

Local sewer service for portions of this specific plan area would be provided by the City of Sacramento. Parcel Numbers 063-0014-002, 063-0014-006, and 063-0053-001 are located in the SASD service area, and local sewer services for these parcels will be provided by SASD. Conveyance from both City and SASD trunk lines to the Sacramento Regional Wastewater Treatment Plant (SRWTP) is provided by SRCSD through large pipelines called interceptors. City of Sacramento trunk lines cannot connect to SASD trunk lines. City facilities must connect to SRCSD interceptor lines directly.

The SRCSD Interceptor Master Plan 2000 (MP 2000) provides information regarding these interceptor lines. SRCSD is in the process of finalizing an Interceptor Sequencing Study that will update the MP 2000 and assist contributing agencies in coordinating collection system facilities.

SRCSD and SASD sewer systems are designed using predicted wastewater flows that are dependent on land use information provided by each land use authority. Sewer studies will need to be completed to fully assess the impacts of any zoning changes that have the potential to increase existing or future flow demands.

Neither SASD nor SRCSD are land-use authorities. Projects identified within SRCSD and SASD planning documents are a direct result of growth projections and potential growth inducements that

are considered by land-use authorities. Impacts associated with providing and expanding sanitary sewer conveyance and treatment must also be considered by the land-use authority and included within their environmental impact report.

If you have any questions regarding these comments, please contact me at (916) 876-9994.

Sincerely,



Sarena Deeble
SRCSD/SASD
Policy and Planning

cc: Prabhakar Somavarapu
Michael Meyer
SRCSD Development Services
SASD Development Services



500 Capitol Mall, Suite 1600
Sacramento, California 95814
main 916.447.0700
fax 916.447.4781
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August 26, 2010

STACY E. GILLESPIE
Direct (916) 319-4649
segillespie@stoel.com

VIA E-MAIL (dallen@cityofsacramento.org) & U.S. MAIL

Dana Allen, Associate Planner
City of Sacramento
Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

**Re: Response to Notice of Preparation of Environmental Impact Report for the Aspen
1-New Brighton Project**

Dear Ms. Allen:

The following response is submitted to the Notice of Preparation of an Environmental Impact Report ("EIR") for the Aspen 1-New Brighton Project ("project"), on behalf of Nancy C. Cleavinger, as trustee of the NC Cleavinger Family Trust et al., and the Florin Perkins Public Disposal Site facility, located at 4201 Florin Perkins Road, Sacramento, California.

The Notice of Preparation of an EIR for the project concerns a tentative subdivision map that would establish parcels for residential, commercial, school, park, and urban farm uses; rezoning from Heavy Industrial to Single Family Residential, Multi-Family Residential, Residential Mixed Use, Shopping Center, Parks/Open Space, and Urban Farm; Large Lot Tentative Subdivision Map; General Plan Amendment; and approval by the City of Sacramento of other entitlements. The project site is located at the southwest corner of Jackson Highway and South Watt Avenue in the City of Sacramento. The site is a former aggregate mine site that provided sand and gravel to the Teichert Perkins Plant. The proposed project development would include a total of 1,365 dwelling units.

Project Location & Compatible Uses with Proposed Land Uses. The Notice of Preparation provides that surrounding uses of the project site include the Teichert Perkins Plant to the north, the Teichert Aspen 2 property to the east, and the L&D Landfill to the south. The Notice of Preparation omits mention that the project site is bounded to the west by the Florin Perkins Public Disposal Site facility.



Dana Allen, Associate Planner
August 26, 2010
Page 2

The analysis contained in the EIR should ensure that the project will be compatible with all facilities surrounding the project site, including the Florin Perkins Public Disposal Site facility. The EIR should evaluate the proposed land uses in relation to surrounding existing land uses and other applicable land use policies. For example, the EIR should include in its land use analysis that a significant portion of the property immediately west to the project site is a former inert landfill operation and that there is an active large volume material recovery and transfer station. Impacts of existing land uses should be assessed. Measures should be recommended to reduce or eliminate any land use impacts.

Easements and Covenants, Conditions, and Restrictions. Because the project includes the development of 1,365 residential units and the facilitation of development of an elementary school, the EIR should evaluate placement of reasonable easements or covenants, conditions, and restrictions, or both, to ensure the future residential dwellers are apprised of the surrounding facilities operations.

Buffer Zones. The project should evaluate and include reasonable setbacks from bordering existing facilities, including the Florin Perkins Public Disposal Site. Such measures should include reasonable setbacks or other adequate buffer zones to reduce or eliminate impacts of existing noise, air quality, geology, soils, and water runoff potentially associated with industrial activities to the north, south, and west of the project site.

Noise. The noise impact analysis should include a description of the existing noise environment. The EIR should also evaluate the noise associated with the project and include the noise and land use compatibility of proposed land uses with existing surrounding land uses.

Traffic and Circulation. The EIR should also evaluate traffic and circulation associated with existing operations, including the Florin Perkins Disposal facility, to ensure travel safety and reliability. The EIR's evaluation of traffic and circulation impacts associated with the project should include an analysis of air contaminants associated with existing facilities traffic and foreseeable facilities expansion.



Dana Allen, Associate Planner
August 26, 2010
Page 3

We appreciate the opportunity to provide this response. Please call me at the number above if you have any questions regarding the contents of this letter.

Very truly yours,

Stacy E. Gillespie

SEG:tlr

cc: Nancy Cleavinger (via facsimile)

August 26, 2010

Dana Allen, Associate Planner
City of Sacramento Community Development Department
Environmental Planning Services
300 Richards Boulevard, Third Floor
Sacramento, CA 95811
dallen@cityofsacramento.org

Submitted Via Email

**RE: Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the
Aspen 1-New Brighton Project
SMAQMD # sac200901352**

Dear Ms. Allen:

Thank you for providing the Sacramento Metropolitan Air Quality Management District (District) an opportunity to comment on the NOP for the Aspen 1-New Brighton Project EIR. Staff comments are as follows:

1. We recommend that the project be analyzed for its air quality impacts from both its construction and operational activities. If the air quality impacts from the project's construction activities prove to be significant, we recommend the City of Sacramento require the inclusion of the District's current standard construction mitigation measures as a mitigation measure in the EIR. A copy of that mitigation is included. If, after the application of this on-site strategy, those emissions are not reduced to the District's threshold of significance, the District recommends that the project include an off-site mitigation fee using the District's standard methodology.
2. If the project's operational emissions exceed the District's threshold, then we recommend that the project proponents develop a District-endorsed operational air quality mitigation plan(AQMP). This AQMP would be designed to reduce operational emissions by 15%. The District recommends that the plan be included as a mitigation measure in the environmental impact report.
3. The project may result in cumulatively significant greenhouse gas (GHG) emissions during both construction and operation. The District recommends that the EIR include a climate change analysis consistent with SMAQMD's CEQA guide¹. This guidance recommends a discussion of the regulatory framework of GHG emissions, identifying a threshold of significance, making a determination of significance based on that framework and providing an analysis of construction and operation emissions resulting from the project. Mitigation measures to

¹ The CEQA guide is available at <http://www.airquality.org/ceqa/ceqguideupdate/Ch6ghgFINAL.pdf>.


address significant GHG emissions should also be included. For further information on developing this analysis, please consult the District's CEQA Guide. We encourage the proponent to include the Green House Gas Reduction Plan in the EIR.

4. The project may result in increased particulate matter (PM) emissions and adverse health effects on local sensitive receptors. Disclose the expected traffic, expected mix of light-duty and heavy-duty vehicles, and utilize SMAQMD's roadway protocol to determine if there is a health risk to current and future sensitive receptors. Consider incorporating design measures to reduce potential exposure to PM emissions, such as increasing buffer distances or planting evergreen trees such as deodar cedar.
5. Given the scope and scale of development under review in the EIR, it is important to ensure excellent connectivity between specific projects within the plan area, particularly for bicycles and pedestrians to area parks and commercial uses. With that in mind, consideration should be given to including design guidelines that require, when feasible, a traditional grid street network with small block sizes for better connectivity.
6. Analyze the impacts and potential emission benefit of an alternative design for the intersection of Rock Creek Parkway and Aspen Promenade, which has been proposed to have a six-way stop. Please determine if an alternative intersection design would reduce vehicle idling and related emissions. Also conduct analysis to determine if an alternative roadway design would result in a safer situation for bicyclists and pedestrians.
7. Analyze the impacts of using roundabouts at various locations. The District recommends that the EIR analysis determine if placing roundabouts at one or more intersections within the project would reduce vehicle idling, travel time, and/or emissions. Please analyze the following specific intersections: Rock Creek Parkway at Aspen Promenade and Street 22/Street 30, Aspen Promenade at Street 21/Street 22, Rock Creek Parkway at Street 7/Street 16, Street 13/Street 18, Street 11/Street 20, and Street 24, Aspen Promenade at Street 19/Street 24.
8. The District notes that the plan allocates land for a new school site. The District acknowledges that the size and location of new school sites reflect complicated federal, state, and local requirements that govern the development of new education facilities. In an effort to make the school walkable to a larger percentage of students, we recommend that the new school site be centrally located and feature a compact, new-urban design. Please include analysis of the potential for reducing emissions associated with school operations by locating the school in a more central area of the project site.
9. To ensure compliance, the District recommends that the mitigation measures and commitments be incorporated into a design guidelines document that uses strong, prescriptive language to ensure compliance.

10. All projects are subject to District rules and regulations in effect at the time of construction. Please see the attached document describing District Rules which may apply to this project.

Please contact me with any questions regarding these comments at (916) 874-2694 or at jhurley@airquality.org.

Sincerely,



Joseph James Hurley
Assistant Air Quality Analyst

Attachment

c: Larry Robinson, SMAQMD

SMAQMD Rules & Regulations Statement (revised 1/07)

*The following statement is recommended as standard condition of approval or construction document language for **all** development projects within the Sacramento Metropolitan Air Quality Management District (SMAQMD):*

All projects are subject to SMAQMD rules and regulations in effect at the time of construction. A complete listing of current rules is available at www.airquality.org or by calling 916.874.4800. Specific rules that may relate to construction activities or building design may include, but are not limited to:

Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may require permit(s) from SMAQMD prior to equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact the District early to determine if a permit is required, and to begin the permit application process. Portable construction equipment (e.g. generators, compressors, pile drivers, lighting equipment, etc) with an internal combustion engine over 50 horsepower are required to have a SMAQMD permit or a California Air Resources Board portable equipment registration.

Other general types of uses that require a permit include dry cleaners, gasoline stations, spray booths, and operations that generate airborne particulate emissions.

Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earth moving activities or any other construction activity to prevent airborne dust from leaving the project site.

Rule 417: Wood Burning Appliances. Effective October 26, 2007, this rule prohibits the installation of any new, permanently installed, indoor or outdoor, uncontrolled fireplaces in new or existing developments.

Rule 442: Architectural Coatings. The developer or contractor is required to use coatings that comply with the volatile organic compound content limits specified in the rule.

Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of asbestos containing material.

SMAQMD Recommended Mitigation for Reducing Emissions from Heavy-Duty Construction Vehicles

Apply only to projects with construction emissions above the CEQA Threshold of Significance.

Revised December 1, 2008

Category 1: Reducing NOx 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 NOx 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.

and:

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 supersede 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.

¹Acceptable options for reducing emissions may include use of newer model year engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.



SMUD

SACRAMENTO MUNICIPAL UTILITY DISTRICT

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P.O. Box 15830, Sacramento, CA 95852-1830; 1-888-742-SMUD (7683)

September 28, 2010

AGENCY FILE NO.: Aspen 1- New Brighton

CITY OF SACRAMENTO
PLANNING DEPARTMENT
ZONING ADMINISTRATOR
ATTN: DANA ALLEN
300 RICHARDS BOULEVARD, RM 330
SACRAMENTO, CA 95812

We have reviewed the Notice of Preparation, An Environmental Impact Report (EIR) for the Aspen 1 – New Brighton Project.

The Aspen 1 – New Brighton Project will have an impact on SMUD's electrical system. Based on the land use information provided, the project will increase the electrical demand for this area by approximately 6.7MW. The increase in the load will not require a new substation but it will require upgrades to the existing facilities.

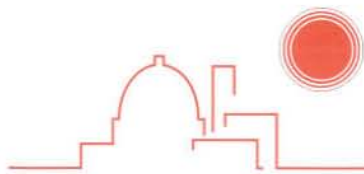
At this time and juncture of the tentative map process we do not have any new comments, however, please see attached comments.

Any revisions or deletions relative to the above conditions must be submitted in writing by the Real Estate section of SMUD. No verbal or other written agreements shall be accepted by the City of Sacramento.

Yujean Kim
Land Agent
Real Estate Services
(916) 732-5027

TB ***-**-** MILETIJEV

SMUD FILE: Aspen 1 EIR



SMUD

SACRAMENTO MUNICIPAL UTILITY DISTRICT

The Power To Do More.®

P.O. Box 15830, Sacramento, CA 95852-1830; 1-888-742-SMUD (7683)

July 17, 2010

AGENCY FILE NO.: P09-038/M09-032

CITY OF SACRAMENTO
PLANNING DEPARTMENT
ZONING ADMINISTRATOR
ATTN: LINDSEY ALAGOZIAN
300 RICHARDS BOULEVARD, RM 330
SACRAMENTO, CA 95812

We have reviewed the Tentative Subdivision Map and large lot map for "Aspen 1", located at 8710 Jackson Road.

We request the following be conditions of the subject maps.

1. Dedicate a 12.5-foot public utility easement for underground and overhead facilities and appurtenances adjacent to Jackson Road and South Watt Avenue.
2. Dedicate a 12.5-foot public utility easement for underground facilities and appurtenances adjacent to all public ways.
3. Label SMUD transmission line easement as a "Restricted Building and Use Area".

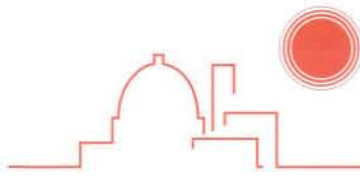
The Sacramento Municipal Utility District occupies a transmission line easement within the boundaries of the subject map and certain uses are not permitted or compatible with the safety, operation, maintenance and construction of our transmission line facilities. Prior to construction, SMUD will want to review grading, landscape, or any other drawings that show changes to the areas within the transmission line easement.

The following is a partial list of restrictions affecting the transmission line easement:

All cut, fill and grading within SMUD's easement must be conducted in a manner so that minimum horizontal and vertical clearances are maintained in accordance with California Public Utilities Commission General Order No. 95. Any violations shall be corrected at the owner's expense.

Vehicular access must be provided to towers at all times.

All metal fixtures placed within the easement area must be properly grounded. A grounding plan shall be submitted to SMUD's Property Administrator for review and approval.



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Tree, landscaping, light standards and equipment shall not exceed 15 feet in height within the easement area.

No structures or buildings are permitted within the easement area including swimming pools, spas, gazebos, wells and man-made reservoirs, lakes or similar bodies of water.

The above list is not all-inclusive and does not constitute SMUD's consent to use its transmission line easement. Such consent may be issued upon receipt, evaluation and approval of final plans and becomes effective when signed by the owner/developer.

For information regarding approvals, acceptable uses and clearances, please contact SMUD's Property Administrator.

Any revisions or deletions relative to the above conditions must be submitted in writing by the Real Estate section of SMUD. No verbal or other written agreements shall be accepted by the City of Sacramento.

Yujean Kim
Land Agent
Real Estate Services
(916) 732-5027

cc: Mike isle

TB 318 E 2 MILETIJEV

SMUD FILE: CS 09-0038 P



909 12th Street Ste 116 Sacramento CA 95814 (916) 444-6600 www.sacbike.org

August 24, 2010

Dana Allen, Associate Planner
City of Sacramento Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Advisory Board

Jane Hagedorn
Consultant
Breathe California of
Sacramento-Emigrant
Trails

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Company

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and Manley, LLP

Craig Stradley
Principal
Mogavero Notestine
Associates

Jim Streng
Partner
Streng Brothers Rentals

RE: Aspen 1 – New Brighton EIR NOP

Dear Ms. Allen:

Thank you for the opportunity to comment on the NOP.

We request that the project EIR address the following issues in its analysis of project impacts and benefits on transportation and circulation:

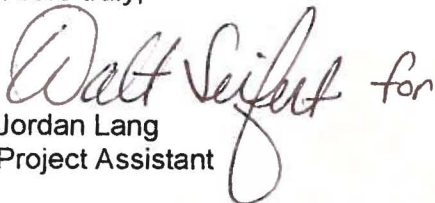
- Compliance of all project streets with the City of Sacramento's "Pedestrian Friendly Street Standards" Policy (http://www.cityofsacramento.org/transportation/dot_media/engineer_media/pdf/Approved-Ord.pdf);
- Compliance of the project's Class I bike trails with Caltrans Highway Design Manual Chapter 1000 standards;
- Compliance with the General Plan's goals M 1.3, M 4.2, and M 5.1 on connectivity, Complete Streets, and bikeways, especially the adequacy and number of internal and external connections for bicyclists and pedestrians among all project areas. For external connections, the potential for future connections to the west and south of the project site should be included.
- Adequacy of bicycle parking facilities at the proposed Mixed Use and Shopping Center areas (see APBP Bicycle Parking Guidelines at <http://www.apbp.org/default.asp?page=Publications>); and
- Adequacy of pedestrian and bicyclist safety features at the external intersections connecting to Jackson Highway and South Watt Avenue.

In general, we recommend that impacts on bicycle safety and levels of service for bicyclists and pedestrians be evaluated for all project alternatives in accordance with revised California Environmental Quality Act guidelines adopted in December 2009.

SABA is an award-winning, nonprofit organization with more than 1,400 members. We represent bicyclists. Our aim is more and safer trips by bike. We are working for a future in which bicycling for everyday transportation is common because it is safe, convenient and desirable. Bicycling is the healthiest, cleanest, cheapest, quietest, most energy efficient and least congesting form of transportation.

Thank you for considering our comments.

Yours truly,

 for
Jordan Lang
Project Assistant

ROBERT & MONICA MADONADO

7704 WILLOW POINT WAY

SACRAMENTO, CA 95831

Home (916) 395-9242

Cell (916) 813-3118

CITY OF SACRAMENTO
COMMUNITY DEVELOPMENT DEPARTMENT
ENVIRONMENTAL PLANNING SERVICES
300 RICHARDS BLVD, 3RD FLOOR
ATTN: Dana Allen, Associate Planner
Sacramento, CA 95811

REFERENCE: Environmental Impact Report (EIR) for the Aspen 1-New Brighton Project

Dear Ms. Allen:

I received a letter regarding the reference EIR on July 28, 2010. This is the first communication I have received regarding any development activity that would effect my property of 8770/8780 Jackson Road, Sacramento, CA 95826.

I spoke to you on the phone early the next day, (July 29,2010) expressing my concern of not being informed about the proposed project. Later that day Mr. Leachman contacted me and a meeting was set up for the following day. My wife and I met Mr. Leachman and Mr. Isle, who apparently represent the Teichert Company.

The project was briefly explained to us. It was indicated that the "process" was just beginning and we were provided with a schematic, page 4 of the proposed plan (Enclosed). However, it seems that this project has been on going for some time and since the schematic is page 4 of 6, it would indicate to us that perhaps there is more details to the project planned. We are disappointed that we were not informed, nor have the opportunity to make any input or to voice our concerns regarding the affects of the project on our interests and property.

Our property at 8770/8780 Jackson Road, Sacramento, CA 95826, has been in our family since 1950. The property is currently zoned M-2, and there is a cellular tower on the property with a long term commitment. We certainly would not welcome any aspect of the project that would jeopardize the existence of the cellular tower on our property. A residential zoning for our property would not be practicable. It has been our plan in the future to develop the property in line with commercial usage.

We have indicated on the enclosed plan our suggestion to expand the commercial zoning from South Watt to our property. The plan shows a main through fare on the east side of our property which connects to the Jackson Road. Rather than residential zoning, it would seem reasonable to have the two corners on either side zoned commercial . Thus, the residential area would be behind the commercial building, and would not be directly exposed to the heavy traffic volume and fumes that are emitted from the heavy trucks and other vehicles that use the Jackson Road.

Lastly, from our view, the plan projects a sardine packed development, and a congested development. The proposed plan that Teichert is developing covers a large number of acres, but some of the proposed lot sizes (examples: 30" x 90", 45" x 90"), are relatively small. Having more homes in this area would cause more traffic and congestion.

My wife and I will be leaving Sacramento in a couple of days and we will be out of the country. We will be returning the first week in September, thus, we will be unable to attend the August 12th and August 26th meetings. We hope that the concerns that we have expressed in this letter will be relevant in either of the two meetings. In any event, we sincerely hope that our concerns and ideas are considered as the project moves along. In the future, we hope we can be kept in the loop.

Sincerely,



ROBERT MALDONADO

Copies to:

Michael G. Isle
Josh Leachman
Stonebridge Properties
3600 American River Drive #160
Sacramento, CA 95864

Tower Asset Sub, LLC
10 Presidential Way
ATTN: Land Management
Woburn, MA 01801

American Tower
Attn: Legal
116 Huntington Avenue
Boston, MA 02116

Josh Leachman
(916) 484-3313

STONEBRIDGE
PROPERTIES, LLC

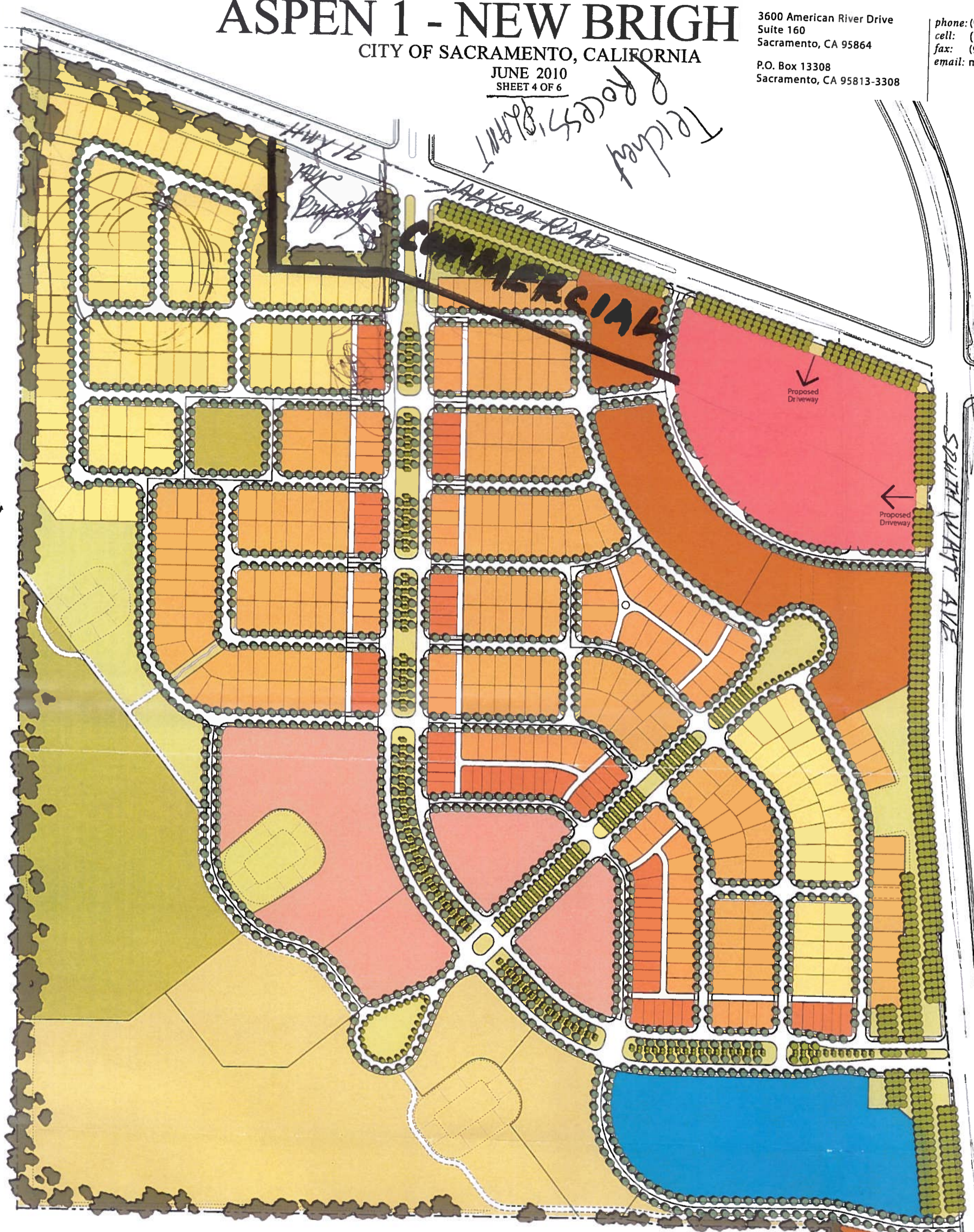
3600 American River Drive
Suite 160
Sacramento, CA 95864
P.O. Box 13308
Sacramento, CA 95813-3308

phone: (916) 484-3237
cell: (916) 296-3884
fax: (916) 488-9994
email: misle@teichert.com

SPD - PUD SCHEMATIC PLAN ASPEN 1 - NEW BRIGH

CITY OF SACRAMENTO, CALIFORNIA

JUNE 2010
SHEET 4 OF 6

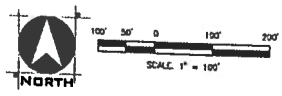


LEGEND

- 30' x 90' Interior (Minimum)*
- 45' x 90' Interior (Minimum)*
- 50' x 100' Interior (Minimum)*
- 55' x 100' Interior (Minimum)*
- Multi Family Residential (25 units/net acre target)
- Residential Mixed Use (30 units/net acre target)
- Commercial (0.25 ~ 0.20 FAR)
- School (Underlying Residential Zoning)
- Urban Farm
- Open Space
- Park

*9 units/net acre target

SHEET NO.	DESCRIPTION
1	COVER SHEET/KEY MAP/NOTES/SECTIONS
2	TENTATIVE SUBDIVISION MAP
3	LARGE LOT TENTATIVE MAP
4	PUD SCHEMATIC PLAN
5	GENERAL PLAN AMENDMENT E158B1
6	NETIC FORM 1



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 949.497.5471

WOOD RODGERS
 DEVELOPING INNOVATIVE DESIGN SOLUTIONS
 3301 C Street, Bldg. 100-B
 Sacramento, CA 95816
 Tel: 916.341.7760
 Fax: 916.341.7767



August 10, 2010

Dana Allen
Environmental Planning Services
Community Development Department
City of Sacramento
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Re: Notice of Preparation for the Aspen 1 – New Brighton Project

Dear Ms. Allen;

Thank you for the opportunity to review and comment on the Notice of Preparation (NOP) for the Draft Environmental Impact Report (DEIR) for the Aspen 1 – New Brighton project. As described in the NOP, the project would include a request for reorganization consisting of annexation of the unincorporated portion of the project area to the City of Sacramento, and detachment of same from the Sacramento Metropolitan Fire District and the Cordova Recreation and Park District. Thus, the Sacramento Local Agency Formation Commission (LAFCo) would be a responsible agency and would rely on the City's environmental document in considering LAFCo actions with respect to the project.

The project also is described as requesting modification of the service boundaries of Cal-Am Water, a private water company. Regarding modification of this service boundary, the approving entity for that action would be the California Public Utilities Commission (PUC). However, if the service area modification were included in the application submitted to LAFCo, we would route the item to the PUC and Cal-Am Water. Conditions of the modification would be business points discussed among the PUC, the City of Sacramento, and Cal-Am Water. The PUC would consider detachment impacts to Cal-Am Water and advise LAFCo. LAFCo would then consider the annexing agency (City) water service capacity for the 23 acres in its proceedings for the project.

Following is a discussion of project description and environmental issue areas of concern to LAFCo. It may be that construction and implementation of the Aspen 1 – New Brighton project will have no adverse effect for one or more of these environmental issues. If so, we request that the environmental document clearly state that such a resource is not present in the project area and that no impact would result.

- A. Project Description – The project description needs to explicitly include all required LAFCo actions, including annexation to the City and detachments of the project site from the Sacramento Metropolitan Fire District and the Cordova Recreation and Park District. A discussion of the modification of the service boundaries of Cal-Am Water also should be set forth, including the role of the PUC, and the relationship between the PUC, LAFCo, and the City. The project description needs to include a discussion regarding the role and sequence of LAFCo in the decision-making process, and LAFCo's role as a responsible agency.



- B. The EIR should address the following issues of statutory concern to LAFCo to permit LAFCo to use the City's environmental documentation in the Commission's consideration of the proposed actions.

Population, Employment and Housing - The evaluation should discuss the presence and potential loss of affordable housing within the project area and, if there would be any loss, what affect the loss would have on a countywide basis. LAFCo is required to ensure that there be no net loss of targeted housing resources on a countywide basis. If no housing resources are located within the project area, or if the project area is not designated in the City's or County's Housing Elements as being the location of a targeted housing type, these facts should be noted.

Public Services - The evaluation should focus on whether any physical facilities on- or off-site would need to be constructed to serve the project, whose construction potentially could have environmental effects. If so, the secondary effects of constructing and operating such facilities should be evaluated. Secondly, the evaluation should assess whether the City has (1) the service capability and capacity to serve the project area, and (2) whether the City can provide services to the project area without adversely affecting existing service levels elsewhere in their service areas. Any service delivery impacts to the Cal American Water Company should also be disclosed.

Natural Resources - Agricultural Lands - The analysis should include a discussion of any current agricultural uses and activities within and adjacent to the project area, including the presence of any lands protected by Williamson Act contracts or within a Farmland Security Zone. The evaluation should also discuss the characteristics of soils found within the area (NRCS land use capability classification and storie index rating [from soil survey], and FMMP classification [from DOC Important Farmlands Map]) to determine the presence or absence of "prime agricultural land" as defined by Government Code §56064. Areas of prime agricultural land should be displayed on a map. In addition to soils information, if agricultural uses are present, for each use or operation determine if the use supports, at a minimum, one Animal Unit (AU)/acre or has returned, or would return if planted with fruit or nut bearing trees, an agricultural value of at least \$400/acre for 3 of the last 5 years. Describe the location and determine the acreage of such areas. (See GC §56064) If there are lands protected by Williamson Act contracts or within a Farmland Security Zone, determine the status, location, and acreage of such lands (renewal, non-renewal), and if non-renewal, the expiration date of the contract(s). If the project would result in the loss of prime agricultural land or protected agricultural lands, evaluate the trend of agricultural land loss countywide, and what portion of the overall inventory and loss that this project represents.

LAFCo is required to make findings regarding five tests of "prime agricultural land" as defined by GC §56064. The EIR needs to provide information regarding such lands to permit LAFCo to make these findings as a responsible agency.

Natural Resources - Open Space - The analysis should include an evaluation of any open space resources as defined by GC §65560 that are located within or adjacent to the project area. Such resources should be depicted on a map. If the project would result in the loss of open space resources, the EIR needs to evaluate the trend of open space loss countywide, and what portion of the overall inventory and loss that this project represents.



Environmental Justice - State law requires LAFCo to consider the extent to which the project will promote environmental justice. "Environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.

Though not statutorily required of LAFCo, the following issues are matters of interest to our Commissioners, and should be thoroughly evaluated in the EIR:

- Criteria air pollutant emissions from project construction and operations
- Consistency with adopted air quality attainment plans
- Greenhouse Gas emissions from project construction and operations, and measures to be taken to reduce greenhouse gas emissions
- Consistency with local, regional, and statewide plans to reduce Greenhouse Gas emissions
- Consistency with the Sacramento Regional Blueprint.

We look forward to working with your office in the environmental review of the Aspen 1 – New Brighton Project. Please contact me if you have any questions regarding our requests.

Yours truly,

Sacramento Local Agency Formation Commission (LAFCo)



Donald J. Lockhart, AICP
Assistant Executive Officer





Countywide Services Agency

Environmental Management
Department

Environmental Compliance Division
Elise Rothschild, Acting Chief

County of Sacramento

Steven C. Szalay, Interim County Executive

Bruce Wagstaff, Agency Administrator

Val F. Siebal, Department Director

August 12, 2010

Dana Allen, Associate Planner
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Dear Ms. Allen:

**SUBJECT: NOTICE OF PREPARATION (NOP) OF A DRAFT ENVIRONMENTAL IMPACT
REPORT FOR THE ASPEN 1-NEW BRIGHTON PROJECT**

Thank you for the opportunity to comment on the NOP for the proposed Aspen 1-New Brighton Project. The Sacramento County Environmental Management Department (EMD) is the Local Enforcement Agency (LEA) for the California Department of Resource, Recycling and Recovery (Cal Recycle). As the Sacramento County LEA, EMD has authority and responsibility for regulatory oversight of all solid waste handling and disposal sites within the Cities and County of Sacramento.

As stated in the NOP, L&D Landfill borders on the south of the proposed project site and is identified by the Solid Waste Information System (SWIS) # 34-AA-0020 and the following Sacramento County Assessor's Parcel Numbers (APNs): 061-0150-003, -015, -016, -027, and -028; and 061-0180-003, -017, and -025. The landfill is operating with a full Solid Waste Facility Permit (SWFP) and is permitted to accept construction and demolition debris, green waste, shredded tires, plastic, and miscellaneous materials such as furniture, carpeting and similar non-putrescible material from commercial refuse collector, and building contractors. L&D Landfill also conducts a construction and demolition (C&D) recycling operation on site.

The LEA has determined that L&D Landfill does not pose negative impacts to the surrounding proposed development; therefore, the LEA has no comments. Other trustee and responsible agencies may have comments for potential impacts under their regulatory jurisdiction.

Please feel free to contact me to further discuss the items on the inspection report. You can reach me at (916) 875-8434.

Sincerely,


Mary Ellen Oetzel
Environmental Specialist III
Solid Waste Program

MEO:tk

c: Nevin Yeates, Cal Recycle
Todd Del Frate, CVRWQCB

W:\DATA\OETZEL\SOLID WASTE\SITES\ASPEN 1 NEW BRIGHTON PROJECT\2010.DOC

Dana Allen

From: Dan Radulescu [DRadulescu@waterboards.ca.gov]
Sent: Tuesday, August 10, 2010 2:39 PM
To: Dana Allen
Cc: Kim Schwab
Subject: Aspen 1-New Brighton Project NOP EIR SCH#2010072058

Dear Sir or Madam:

Our comments refer mainly to the Hydrology and Water Quality component. We believe that, in addition to avoidance exercised first, minimization second, if adequate mitigation measures are not implemented, the project may have the potential to result in significant impacts to aquatic resources. Recent studies from U.S. Geological Service have demonstrated that immediate and significant impacts can result at very low level of changes of imperviousness in watersheds due to urbanization.<http://pubs.usgs.gov/ds/423/>

In regard to the notice of the proposed project, we would like to recommend the City, that after, or in conjunction with avoidance and minimization, to incorporate Low Impact Development(LID), Smart Growth standards in order to mitigate some of the impacts related to urbanization and provide sustainable approaches for the (re)development of the city areas while preserving the natural resources. The project proposed is within the regulated area covered by the Sacramento County and Cities of Folsom, Citrus Heights, Galt, Elk Grove, Rancho Cordova, and Sacramento (Permittees) Storm Water Discharges from Municipal Separate Storm Sewer System (MS4 Permit), NPDES No. CAS083740, Waste Discharge Requirements Order No. R5-2008-0142, (Order) which is regulated by the Regional Water Board. An integral and enforceable part of the Order includes the Storm Water Quality Improvement Plan (SQIP). One of the six programmatic control measures in the SQIP includes the Planning and New Development Program. The Order states that the Permittees must require long-term post-construction best management practices (BMPs) that protect water quality and control runoff flow ideally to the pre-development levels to be incorporated into development and significant redevelopment projects. Low impact design (LID) strategies are specifically required, as well as the City addressing LID designs early in the entitlement phase of a project.

LID is a sustainable practice that benefits water supply and contributes to water quality protection. The goal of LID is to mimic a sites predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall.

Hydromodification strategies should include controls to manage the increases in the magnitude, volume and duration of runoff from development projects in order to protect receiving waters from increased potential for erosion and other adverse impacts, ideally to the pre-development levels.

On 20 January, 2005, Resolution 2005-0006 was adopted by the State Water Resources Control Board. The resolution adopted the concept of sustainability as a core value for all California Water Boards activities and programs, and directed California Water Boards staff to consider sustainability in all future policies, guidelines, and regulatory actions, including the review of applicable CEQA documents.

In case waters of the United States or the state are directly impacted, the project may need coverage under Clean Water Act sections 404 and 401 permits.

Please also note that the new Construction Storm Water General Permit, recently issued by the State Water Board, Order 2009-0009-DWQ, also require the implementation of post-construction controls.
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

For further details please check

http://www.opr.ca.gov/ceqa/pdfs/Technical_Advisory_LID.pdf

http://www.epa.gov/smartgrowth/about_sg.htm

http://www.waterboards.ca.gov/water_issues/programs/low_impact_development/index.shtml

Thank you for the opportunity to present comments,



Water Boards

STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Dan Radulescu, EJD, P.E., CPSWQ

Lead, MS4 Permitting & Water Quality Certification Unit

Central Valley Regional Water Quality Control Board | CalEPA

11020 Sun Center Drive, Suite 200

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F:(916) 464-4775

dradulescu@waterboards.ca.gov

Find us on the web at <http://www.waterboards.ca.gov/centralvalley/>



William Sponable
Fire Chief

Sacramento Metropolitan Fire District

3012 Gold Canal Drive • Rancho Cordova, California 95670 • Phone (916) 859-4330 • Fax (916) 859-3717

August 31, 2010

Dana Allen, Associate Planner
Environmental Planning Services
Community Development Department
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811
(916) 808-2762

RE: **Project Name: Aspen 1 – New Brighton**
Project Location: Jackson Highway & South Watt Avenue

This office is in receipt of your request for Fire District review and comment for the referenced project. Upon consideration of the plans submitted to date, the following requirements and areas of concern have been identified:

NOTE: THE FOLLOWING INFORMATION IS FOR THE APPLICANTS/ENGINEER'S REVIEW PRIOR TO SUBMITTAL OF SITE IMPROVEMENT DRAWINGS:

Applicant: It is highly recommended that specific requirements for your project be obtained from the Fire District during the pre-construction planning stage. Specific requirements for bridges, fire hydrants, entry gates, and access roadways must be clearly understood and complied with. It is advisable to schedule a design review conference with the Fire District to provide any necessary requirement clarification.

If there are no immediate plans for construction or the on-site storage of combustible construction materials, the requirements applicable to construction may be held in abeyance until such time that construction occurs. If this property is sold prior to development, the seller must disclose the above requirements to the buyer.

1. All parcels and subdivisions serviced by private roads shall have a road maintenance agreement (RMA) recorded with the Public Records Office having jurisdiction. The roadway maintenance agreement shall include the following:

(Alternate opening) Reciprocal access and roadway maintenance agreements shall be provided for the interior roadways of the proposed complex/subdivision. The roadway

maintenance and reciprocal access agreements shall be record with the Public Records Office having jurisdiction and shall provide for the following:

- a. Provisions for the necessary repair and maintenance of the roadway surface
 - b. Removal of vegetation overgrowing the roadway and infringing on the roadway clear vertical height of thirteen feet six inches (13'6") and/or width of twenty feet (20')
 - c. Provisions for the maintenance, repair, and/or replacement of NO PARKING-FIRE LANE signage or striping
 - d. Provisions for the necessary repair and maintenance of vehicle and pedestrian access gates and opening systems
 - e. Unrestricted use of and access to the roadways covered by the agreements.
 - f. Provisions for the control of vehicle parking in prohibited areas and a mechanism for the removal of vehicles illegally parked.
2. A copy of the road maintenance agreement shall be provided to the Fire District with the site improvement or Civil Engineering drawings upon submittal for review. If the roadway agreement is not provided with the site improvement or civil engineering drawings, it shall be presented to the Fire District prior to the issuance of any CORs (Certificates of Release) or construction permit cards.
3. The installation of approved traffic control equipment may be required on all signal lights installed or modified as a part of this project to allow emergency fire apparatus to activate the traffic signal.
4. Approved numbers or addresses shall be placed on all new or existing buildings in such a position as to be easily read from the street or road fronting the property. The minimum size of the numbers shall not be less than six (6) inches and shall be mounted immediately adjacent to a light source and shall also contrast with their background. Where multiple occupancies are serviced by vehicular access to the rear of the building via any driveway, alleyway, or parking lot the numbers or addresses shall be displayed on the rear of the building.
5. Approved fire hydrants capable of providing the required fire flow for the protection of any and all structures shall be located shall be located along the route of the fire apparatus access roadway. The required fire hydrants shall be installed and operational prior to any construction or on-site storage of combustible materials. The minimum required fire flow for the protection of residential developments with an area per building not exceeding 3,600 square feet is 1,000 gallons per minute (gpm) at a pressure of 20 pounds per square inch (psi) for a two-hour duration. Fire hydrant installations for the protection of residential projects shall comply with the following requirements:
- A. One fire hydrant shall be located between 150 and 250 feet from the end of the access roadway. The required access roadway shall extend to within 150 feet of all portions of the structure.
 - B. A hydrant installed at the end of an access roadway as a "blow off" for the water district does not meet the fire department fire hydrant requirements.

- C. Existing “wharf” type fire hydrant(s) do not satisfy hydrant requirements for new construction, and must be upgraded to an approved steamer type hydrant(s).
 - D. Each approved fire hydrant shall have a minimum flow of 1,000 gallons per minute (gpm) for residential developments. Additional requirements apply to residential dwellings with building areas greater than or equal to 3,600 square feet.
6. Plans shall be submitted to the fire prevention bureau showing hydrant locations for review and approval prior to construction. **Fire hydrant details and fire department notes shall be shown on the site plans or improvement drawings.**
7. Residential roof coverings shall consist of materials having a minimum Class C rating.
8. Provide access roadways with all weather driving surfaces of not less than 20-feet of unobstructed width, 13-foot, 6-inches of vertical clearance, and turning radii of 25 feet inside and 50 feet outside dimension. The access roadways shall be capable of supporting the imposed loading of fire apparatus and shall extend to within 150 feet of all portions of the exterior walls of the first story of any proposed building. The required clear roadway width of 20 feet may be reduced to a minimum of 16 feet for roadways serving no more than 2 single-family dwellings. The required width of 20 feet shall not be reduced to the last 2 single-family dwellings on a roadway serving in total more than 2 single-family dwellings. **The use of turf-block or grass-crete or similar alternate road surfaces is not approved for installation in fire apparatus access roadways. Traffic calming measures, speed bumps, humps, etc., shall not be installed in fire apparatus access roadways.**
9. When the apparatus access roadway length exceeds 150 feet from the public way, an approved fire apparatus roadway conforming to SMFD Standard 444.302 shall be provided. The turn-around shall be located within 50 feet of the end of the access roadway. All parcels zoned as residential (RD) shall be provided with a finished road surface consisting of 2 inches of asphalt concrete (AC) over 6 inches of aggregate base (AB) or the equivalent in concrete or other approved surface. This requirement is applicable to existing gravel roadways.
10. Vehicle parking is prohibited on any street less than 28 feet in width. Vehicle parking is permitted on both sides of streets 36 feet or more in width. Roadway width shall be measured between the gutter-line or edge of pavement on opposite sides of the road. Identification of fire apparatus access roadways may be required on private roads.
11. The installation of security gates is regulated by the Sacramento County Fire Code, emergency access gates and barrier requirements. All proposed vehicle and pedestrian access gate installations shall be in full compliance with this regulation. Gates and fencing shall not be installed without plan review and approval by the Fire District.

12. All roadways and cul-de-sacs shall meet Sacramento County Department of Transportation standards for length and width.

Sacramento Metropolitan Fire District requirements are not to be construed as abrogating more restrictive requirements by other agencies having jurisdiction.

If I may answer any questions or be of further assistance, please feel free to contact me at (916) 942-3300

Sincerely:

A handwritten signature in cursive script that reads "Mike Stewart".

Mike Stewart
Fire Marshal

APPENDIX C



Aspen 1-New Brighton

Project# P09-038/M09-032

Initial Study

PREPARED FOR THE
CITY OF SACRAMENTO

MAY 2011



ASPEN 1 – NEW BRIGHTON [P09-038/M09-032]

INITIAL STUDY FOR ANTICIPATED SUBSEQUENT PROJECTS UNDER THE 2030 GENERAL PLAN MASTER ENVIRONMENTAL IMPACT REPORT (EIR)

This Initial Study has been prepared by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into the following sections:

SECTION I - BACKGROUND: Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

SECTION II - PROJECT DESCRIPTION: Includes a detailed description of the proposed project.

SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION: Reviews the proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Master EIR for the 2030 General Plan.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION V - DETERMINATION: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

SECTION I - BACKGROUND

Project Name and File Number: Aspen 1-New Brighton (P09-038, M09-032)

Project Location: Southwest corner of Jackson Highway and South Watt Avenue

Project Applicant: Stonebridge Properties, LLC
Mike Isle
(916) 484-3237

Project Planner: Antonio Ablog, Associate Planner
(916) 808-7702

Environmental Planner: Dana Allen, Associate Planner
(916) 808-2762

Date Initial Study Completed: May 2011

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 1500 *et seq.*). The Lead Agency is the City of Sacramento.

The City of Sacramento Community Development Department has reviewed the proposed project and, on the basis of the whole record before it, has determined that the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR (Master EIR) and is consistent with the land use designation and the permissible densities and intensities of use for the project site as set forth in the 2030 General Plan. See CEQA Guidelines Section 15176 (b) and (d).

The City has prepared the attached Initial Study to (a) review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR to determine their adequacy for the project (see CEQA Guidelines Section 15178[b] and [c]) and (b) identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or alternatives that may avoid or mitigate the identified effects to a level of insignificance.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177[d]). The Master EIR mitigation measures that are identified as appropriate are set forth in the applicable technical sections below.

This analysis incorporates by reference the general discussion portions of the Master EIR (CEQA Guidelines Section 15150(a)). The Master EIR is available for public review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811 and on the City's web site at: www.cityofsacramento.org/dsd/planning/environmental-review/eirs/.

SECTION II - PROJECT DESCRIPTION

Introduction

The project site is located at the southwest corner of Jackson Highway and South Watt Avenue in the City of Sacramento (See Attachment 1). A small portion of the project site is located outside the city limits, within unincorporated Sacramento County. The project site encompasses approximately 232 acres and is identified by the following Sacramento County Assessor's Parcel Numbers (APNs): 078-0202-007, -010, and -013; 063-0014-002 and -006; 063-0053-001; 061-0150-003, -004, -015, -016, -027, and -028; and 061-0180-003, -017, and -025.

Project Background

The proposed project site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins Plant. Mining on the project site was completed in the late 1960s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins Plant, and an electrical transmission line that transects the site in a northwesterly direction. The conveyor belt system utilizes a series of tunnel crossings under Jackson Highway and South Watt Avenue, which are proposed to be incorporated into the overall trail and drainage system for the project. Due to the former mining activities, topography on the site is varied and vegetation is limited. Existing trees are also limited, with the exception of some remnant Heritage Trees. In addition, one approximately 20-year-old structure exists on-site.

The proposed project site is part of what is commonly referred to as "Aspen 1," which is owned and operated by Teichert Land Company. As discussed above, the proposed project site is a former mine site, which was utilized for sand and gravel extraction from approximately 1961 to the late 1960s. Since mining of the site was completed, the site has primarily been utilized for a variety of supporting uses for the Teichert Perkins Plant.

Prior to the preparation of this application, the City of Sacramento petitioned the Sacramento Local Agency Formation Commission (LAFCo) for a Sphere of Influence (SOI) Amendment for approximately 34 gross acres of land within the project site to be included within the City of Sacramento SOI. This request was approved by LAFCo on April 1, 2009 (Resolution No. LAFCo 2009-02-0401-05-08 and the affected property is included within this project to facilitate a comprehensive master planning process. The LAFCo-approved SOI also included Conditions of Approval.

Project Description

The proposed project includes a Tentative Map that would establish parcels for residential, commercial, school, park, and urban farm uses (See Attachment 2). The project would include 59.1 acres of land designated Single-Family Residential located in three separate areas of the project site (northwest, center, and southeast portions) and 15.1 acres of land designated Multi-Family Residential located in two separate areas of the project site (northeast and southeast portions). The project would include the following additional uses: 10.5 acres of land designated Residential Mixed-Use located in the central portion of the project site; 10.8 acres of land designated Shopping Center located in the northeast portion of the site; 34.4 acres of land designated Open Space/Park in five separate areas throughout the project site; 8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-

Family Residential; and 26.8 acres of land designated Urban Farm in the southwest portion of the project site.

Attachments

Attachment 1 – Project Location

Attachment 2 – Tentative Subdivision Map

Attachment 3 – General Plan Amendment Exhibit

Attachment 4 - Rezone Exhibit

SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION

LAND USE, POPULATION, AND HOUSING, AND AGRICULTURAL RESOURCES

Introduction

CEQA requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable general plans and regional plans.

An inconsistency between the proposed project and an adopted plan for land use development in a community would not constitute a physical change in the environment. When a project diverges from an adopted plan; however, it may affect planning in the community regarding infrastructure and services, and the new demands generated by the project may result in later physical changes in response to the project.

In the same manner, the fact that a project brings new people or demand for housing to a community does not, by itself, change the physical conditions. An increase in population may, however, generate changes in retail demand or demand for governmental services, and the demand for housing may generate new activity in residential development. Physical environmental impacts that could result from implementing the proposed project are discussed in the appropriate technical sections.

This section of the Initial Study identifies the applicable land use designations, plans and policies, and permissible densities and intensities of use, and discusses any inconsistencies between these plans and the proposed project. This section also discusses agricultural resources and the effect of the project on these resources.

Discussion

The proposed project site consists of approximately 232 acres located at the southwest corner of Jackson Highway and South Watt Avenue in the City of Sacramento. A small portion of the project site is located outside the city limits. The Sacramento General Plan designates the project site as Traditional Neighborhood Medium (195.3 acres), Suburban Center (7.5 acres), and Special Study Area (29.5 acres) (See Attachment 3). The project would include a General Plan Amendment, rezoning, a rezone (See Attachment 4), establishment of a Planned Unit Development (PUD) zone, and preparation of an Inclusionary Housing Plan. Further discussion related to land use, population, and housing is addressed in Chapter 4, Land Use, Population, and Housing, of the Aspen 1-New Brighton EIR.

The proposed project site is a former aggregate mining site and currently is utilized primarily for wash ponds, drying beds, and a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins Plant. The Preliminary Geotechnical Engineering report for the project site determined that soils conditions consist of disturbed native soils and undocumented fill soils related to previous mining activities. Mining of the project site occurred prior to the Surface Mining and Reclamation Act (SMARA) and the site was not required to adhere to a reclamation plan. Although a portion of the project site was reclaimed and used for agricultural purposes, the reclaimed area has not been used for active agriculture for over five years. In addition, the project would include overexcavation and recompaction of the project site. Therefore, the project site is not considered Prime Farmland.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
1. <u>AESTHETICS, LIGHT AND GLARE</u>			
Would the proposal:			
A) Create a source of glare that would cause a public hazard or annoyance?	X		
B) Create a new source of light that would be cast onto oncoming traffic or residential uses?	X		

ENVIRONMENTAL SETTING

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, aesthetics impacts may be considered significant if the proposed project would result in one or more of the following:

Glare. Glare is considered to be significant if it would be cast in such a way as to cause public hazard or annoyance for a sustained period of time.

Light. Light is considered significant if it would be cast onto oncoming traffic or residential uses.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR described the existing visual conditions in the General Plan policy area and the potential changes to those conditions that could result from development consistent with the 2030 General Plan (See the Master EIR, Chapter 6.13, Urban Design and Visual Resources).

The Master EIR identified potential impacts for glare (Impact 6.13-1). Mitigation Measure 6.13-1, set forth below, was identified to reduce the effect to a less-than-significant level.

Light cast onto oncoming traffic or residential uses was identified as a potential impact (Impact 6.13-2). The Master EIR identified Policy LU 6.1.14 (Compatibility with Adjoining Uses) and its requirement that lighting must be shielded and directed downward as reducing the potential effect to a less-than-significant level.

MITIGATION MEASURES FROM THE MASTER EIR THAT APPLY TO THE PROJECT

Master EIR Mitigation Measure 6.13-1: The City shall amend the Zoning Code to prohibit new development from:

- 1) Using reflective glass that exceeds 50 percent of any building surface and on the ground three floors;
- 2) Using mirrored glass;
- 3) Using black glass that exceeds 25 percent of any surface of a building; and
- 4) Using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building.

The Zoning Code has not yet been amended to include the restrictions identified in Mitigation Measure 6.13-1. The restrictions will be applied to the project, if applicable, to ensure that the potential impact identified in the Master EIR is less than significant.

ANSWERS TO CHECKLIST QUESTIONS

Questions A, B

Implementation of the proposed project would result in the introduction of light and glare onto oncoming traffic or residential uses where sources do not currently exist. Sensitive receptors are located northeast of the project site and Jackson Highway is located north of the site. Therefore, the project could have a ***potentially significant*** impact related to the creation of light and glare.

MITIGATION MEASURES

The impacts will be fully addressed in the Urban Design and Visual Resources chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Aesthetics.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
2. AIR QUALITY <i>Would the proposal:</i>			
A) Result in construction emissions of NO _x above 85 pounds per day?	X		
B) Result in operational emissions of NO _x or ROG above 65 pounds per day?	X		
C) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X		
C) Result in PM ₁₀ 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?	X		
E) Result in 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)?	X		
F) Result in exposure of sensitive receptors to substantial pollutant concentrations?	X		
G) Result in 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?	X		
H) Impede the City or state efforts to meet AB32 standards for the reduction of greenhouse gas emissions?	X		

ENVIRONMENTAL AND REGULATORY SETTING

In December 2006 the Environmental Protection Agency (EPA) revised the national ambient air quality standard for fine particle pollution to provide increased protection of public health and welfare. The revised standard is 35 micrograms per cubic meter (ug/m³) for particles less than or equal to 2.5 micrometers in diameter (PM_{2.5}), averaged over 24 hours. In December 2008 the EPA Administrator identified nonattainment areas, and in October 2009 confirmed the designations. Sacramento County is included on this list, along with portions of surrounding counties that contribute to the nonattainment conditions. The designations became effective in December 14, 2009.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, air quality impacts may be considered significant if construction and/or implementation of the Proposed Project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- Construction emissions of NO_x above 85 pounds per day;
- Operational emissions of NO_x or ROG above 65 pounds per day;

- 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, 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.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR addressed the potential effects of the 2030 General Plan on ambient air quality and the potential for exposure of people, especially sensitive receptors such as children or the elderly, to unhealthful pollutant concentrations. See Master EIR, Chapter 6.1.

Policies in the 2030 General Plan in Environmental Resources were identified as mitigating potential effects of development that could occur under the 2030 General Plan. For example, Policy ER 6.1.1 calls for the City to work with the California Air Resources Board and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to meet state and federal air quality standards; Policy ER 6.1.12 requires the City to review proposed development projects to ensure that the projects incorporate feasible measures that reduce construction and operational emissions; Policy ER 6.1.11 calls for coordination of City efforts with SMAQMD; and Policy ER 6.1.15 requires the City to give preference to contractors using reduced-emission equipment.

The Master EIR identified exposure to sources of toxic air contaminants (TAC) as a potential effect. Policies in the 2030 general Plan would reduce the effect to a less-than-significant level. The policies include ER 6.1.5, requiring consideration of current guidance provided by the Air Resources Board and SMAQMD; requiring development adjacent to stationary or mobile TAC sources to be designed with consideration of such exposure in design, landscaping and filters; as well as Policies ER 6.11.1 and ER 6.11.15, referred to above.

The Master EIR found that greenhouse gas emissions that would be generated by development consistent with the 2030 General Plan would be a significant and unavoidable cumulative impact. The discussion of greenhouse gas emissions and climate change in the 2030 General Plan Master EIR are incorporated by reference in this Initial Study. (CEQA Guidelines Section 15150)

The Master EIR identified numerous policies included in the 2030 General Plan that addressed greenhouse gas emissions and climate change. See Draft MEIR, Chapter 8, and pages 8-49 et seq. The Master EIR is available for review at the offices of Development Services Department,

300 Richards Boulevard, 3rd Floor, Sacramento, CA during normal business hours, and is also available online at <http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/>.

Policies identified in the 2030 General Plan include directives relating to sustainable development patterns and practices, and increasing the viability of pedestrian, bicycle and public transit modes. A complete list of policies addressing climate change is included in the Master EIR in Table 8-5, pages 8-50 et seq; the Final MEIR included additional discussion of greenhouse gas emissions and climate change in response to written comments. See changes to Chapter 8 at Final MEIR pages 2-19 et seq. See also Letter 2 and response.

ANSWERS TO CHECKLIST QUESTIONS

Questions A-H

The project site is located within the SVAB and is under the jurisdiction of the SMAQMD. According to SMAQMD, State and federal air quality standards for ozone, carbon monoxide, and particulate matter have been exceeded several times per year in the Sacramento region.

Grading and construction activities would generate dust; construction equipment would generate vehicle emissions on-site; and vehicles transporting building supplies and equipment to and from the project site would generate pollution.

In addition, the Aspen 1 project would result in an increase in traffic-related emissions during the operational phase of the project. Traffic-generated emissions, and dust associated with the project could result in substantial contributions to an existing or projected violation of an ambient air quality standard by exceeding the SMAQMD Standards for NO_x, and PM₁₀ construction emissions. During construction and operation of the project greenhouse gases (GHGs) would be emitted from the operations of construction equipment, from workers, building supply vendor vehicles, and off-site motor vehicles use. In addition, construction of the project in the proposed location could expose sensitive receptors to substantial pollutant concentrations. Therefore, impacts related to air quality would be considered ***potentially significant***.

MITIGATION MEASURES

The impacts will be fully addressed in the Air Quality chapter of the Aspen 1 EIR.

Findings

The project may have a significant environmental effect on Air Quality.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<p>3. <u>BIOLOGICAL RESOURCES</u> Would the proposal:</p> <p>A) Create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected</p>	X		
<p>B) Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal</p>	X		
<p>C) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)?</p>	X		

ENVIRONMENTAL SETTING

The project site is located with the Fruitridge Broadway Community Plan area within the City of Sacramento. The proposed project site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins Plant. Mining on the project site was completed in the late 1960s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins Plant, and an electrical transmission line that transects the site in a northwesterly direction. The onsite soils have been largely disturbed as a result of mineral extraction and related uses.

STANDARDS OF SIGNIFICANCE

For purposes of this environmental document, an impact would be significant if any of the following conditions or potential thereof, would result with implementation of the proposed project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal; or
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

For the purposes of this document, “special-status” has been defined to include those species, which are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);

- Designated as endangered or rare, pursuant to California Fish and Game Code (Section 1901);
- Designated as fully protected, pursuant to California Fish and Game Code (Section 3511, 4700, or 5050);
- Designated as species of concern by U.S. Fish and Wildlife Service (USFWS), or as species of special concern to California Department of Fish and Game (CDFG);
- Plants or animals that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA).

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.3 of the Master EIR evaluated the effects of the 2030 General Plan on biological resources within the general plan policy area. The Master EIR identified potential impacts in terms of degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.

Policies in the 2030 General Plan were identified as mitigating the effects of development that could occur under the provisions of the 2030 General Plan. Policy 2.1.5 calls for the City to preserve the ecological integrity of creek corridors and other riparian resources; Policy ER 2.1.10 requires the City to consider the potential impact on sensitive plants for each project and to require pre-construction surveys when appropriate; and Policy 2.1.11 requires the City to coordinate its actions with those of the California Department Fish and Game, U.S. Fish and Wildlife Service, and other agencies in the protection of resources.

The Master EIR concluded that the cumulative effects of development that could occur under the 2030 General Plan would be significant and unavoidable as they related to effects on special-status plant species (Impact 6.3-2), reduction of habitat for special-status invertebrates (Impact 6.3-3), loss of habitat for special-status birds (Impact 6.3-4), loss of habitat for special-status amphibians and reptiles (Impact 6.3-5), loss of habitat for special-status mammals (Impact 6.5-6), special-status fish (Impact 6.3-7) and, in general, loss of riparian habitat, wetlands and sensitive natural communities such as elderberry savannah (Impacts 6.3-8 through 10).

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Questions A-C

The proposed project site is located in an urbanized area and does not contain known habitats which would be endangered by the proposed project. A map of known sensitive elements is shown on Figure 6.3-2, page 6.3-13 of the Sacramento General Plan Master EIR. Vegetation on-site is limited to scattered trees and dry grass. However, because wash ponds with vegetation and trees exist on the site, the potential exists for special status species to be present on-site. Therefore, a **potentially significant** impact would occur.

MITIGATION MEASURES

The impacts will be fully addressed in the Biological Resources chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Biological Resources.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
4. <u>CULTURAL RESOURCES</u>			
Would the project:			
A) Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5?	X		
B) Directly or indirectly destroy a unique paleontological resource?	X		

ENVIRONMENTAL SETTING

The proposed project site is a former aggregate mining site that provided alluvial sand and gravel in the 1960s to the Teichert Perkins Plant. Mining on the project site was completed in the late 1960s and since that time the property has been utilized primarily for wash ponds, drying beds, a conveyor belt system that transports raw aggregate reserves to the Teichert Perkins Plant, and an electrical transmission line that transects the site in a northwesterly direction. According to the Sacramento General Plan Master EIR, Figure 6.4-1, the project site is not located with a high or moderate archaeological sensitive area. The onsite soils have been largely disturbed as a result of mineral extraction uses.

Pre-History/Ethnography

The Sacramento Valley was home to significant populations of Native Americans prior to European settlement. Two distinct language groups, the Nisenan and the Plains Miwok inhabited the lower portion of the Valley. Prehistoric cultural resources include the evidence and remains of Native American subsistence activities such as, plant collection, hunting, fishing, and the fabrication of household items. Significant cultural resources are associated with the development of Sacramento as a Euro-American settlement in the early 19th century and its subsequent role as a gold-rush era trade center and its emergence as California’s state capitol. Historic cultural resources include buildings, structures, roadwork, earthwork, and artifacts dating back from these periods.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, cultural resource impacts may be considered significant if the proposed project would result in one or more of the following:

1. Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5 or
2. Directly or indirectly destroy a unique paleontological resource. Answers to Checklist Questions

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the potential effects of development under the 2030 General Plan on prehistoric and historic resources. See Chapter 6.4. The Master EIR identified significant and unavoidable effects on historic resources and archaeological resources.

General plan policies identified as reducing such effects call for identification of resources on project sites (Policy HCR 2.1.1), implementation of applicable laws and regulations (Policy HCR 2.1.2), early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10 and encouragement of adaptive reuse of historic resources (Policy HCR 2.1.13). Demolition of historic resources is deemed a last resort. (Policy HCR 1.1.14)

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Questions A-C

The proposed project consists of redevelopment of an active aggregate mine and related uses to residential, commercial, and recreational uses. Although the project site is a former aggregate mine, the project includes overexcavation, the potential exists for damage to, or destruction of, currently unrecorded cultural resources within the project boundaries during construction. Therefore, the impact to cultural resources would be considered *potentially significant*.

MITIGATION MEASURES

The impacts will be fully addressed in the Cultural Resources chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Cultural Resources.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<p><u>5.GEOLOGY AND SOILS</u></p> <p>Would the project allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards?</p>	X		

ENVIRONMENTAL SETTING

Seismicity

The Sacramento 2030 General Plan Master EIR identifies all of the City of Sacramento as being subject to potential damage from earthquake groundshaking at a maximum intensity of VIII on the Modified Mercalli scale (SGP MEIR, Table 6.5-6). The closest potentially active faults to the project area include the Foothills Fault System, located approximately 23 miles from Sacramento; the Great Valley fault, located 26 miles from Sacramento; Concord-Green Valley Fault, located approximately 38 miles from Sacramento; and the Hunting Creek-Berryessa Fault, located 38 miles from Sacramento. The Foothills Fault System is considered capable of generating an earthquake with a Richter-Scale magnitude of 6.5; the Great Valley Fault is capable of generating an earthquake with a magnitude of 6.8; the Concord-Green Valley fault is capable of generating an earthquake with a magnitude 6.9, and the Hunting Creek-Berryessa Fault could generate a 6.9 magnitude earthquake. A major earthquake on any of these faults could cause strong groundshaking in the project area.

Topography

The project site is a former aggregate mine. The site has been used for aggregate wash material, storage of processing waters, transport and storage of pre-processed mining materials, and agriculture on reclaimed lands. Due to former mining activities, topography on the site varies and a majority of the site is below historic grade. However, the commercial nursery property and agricultural lands were restored to near the pre-mining elevation. Terrain in the SGP is generally flat (SGP MEIR, 6.5-6). The potential for slope instability within the City of Sacramento is minor, due to the relatively flat topography of the area.

Regional Geology

The City of Sacramento is located in the Great Valley of California. The Great Valley is a flat alluvial plain approximately 50 miles wide and 400 miles long in the central portion of California. The northern portion of the Great Valley is the Sacramento Valley drained by the Sacramento River, and its southern part is the San Joaquin Valley drained by the San Joaquin River. The valley is surrounded by the Sierra Nevada to the east, the Tehachapi Mountains to the south, Coastal Range to the west, and Cascade Range to the north.

STANDARDS OF SIGNIFICANCE

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

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.5 of the Master EIR evaluated the potential effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, existing mineral resources and paleontological resources in the general plan policy area. Implementation of identified policies in the 2030 General Plan reduced all effects to a less-than-significant level. Policies EC 1.1.1 through 1.1.3 require regular review of the City’s seismic and geologic safety standards, geotechnical investigations for project sites and retrofit of critical facilities such as hospitals and schools.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTION

The SGP MEIR identifies the entire City of Sacramento as being subject to potential damage from earthquake groundshaking at a maximum intensity of VIII on the Modified Mercalli Scale (SGP MEIR, 6.5-6). The 2030 General Plan indicates that groundshaking will occur periodically in Sacramento as a result of distant earthquakes. The 2030 General Plan further states that the earthquake resistance of any building is dependent on an interaction of seismic frequency, intensity, and duration with the structure’s height, condition, and construction materials. Although the project site is not located near any active or potentially active faults, several outlying regional faults exist. A major earthquake on any of the regional faults could cause strong ground-shaking at the project site. The Sacramento 2030 General Plan MEIR concluded that faults having the potential for producing earthquakes with greater than Magnitude 6.5 are located within 50 miles of the City.

Construction and grading activities on the project site would involve the operation of heavy equipment. The potential for soil erosion is considered to be high because the topography of the site varies greatly due to previous mining activities and subsequent fill operations. Peak stormwater runoff could result in sheet erosion within areas of exposed soils. The project is fill with native soils and undocumented fill and would overexcavation and recompaction. Because the proposed project site could be subject to seismic hazards, soil erosion, and liquefaction, development of the proposed project could result in a ***potentially significant*** impact.

MITIGATION MEASURES

The impacts will be fully addressed in the Hydrology, Water Quality, and Drainage chapter and Geology and Soils chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Geology and Soils.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
7. HAZARDS Would the project: A) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?	X		
B) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials?	X		
C) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities?	X		

ENVIRONMENTAL AND REGULATORY SETTING

Federal regulations and regulations adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD) apply to the identification and treatment of hazardous materials during demolition and construction activities. Failure to comply with these regulations respecting asbestos may result in a Notice of Violation being issued by the AQMD and civil penalties under state and/or federal law, in addition to possible action by U.S. EPA under federal law.

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

SMAQMD Rule 902 and Commercial Structures

The work practices and administrative requirements of Rule 902 apply to all commercial renovations and demolitions where the amount of Regulated Asbestos-Containing Material (RACM) is greater than:

- 260 lineal feet of RACM on pipes, or
- 160 square feet of RACM on other facility components, or
- 35 cubic feet of RACM that could not be measured otherwise.

The administrative requirements of Rule 902 apply to any demolition of commercial structures, regardless of the amount of RACM.

Asbestos Surveys

To determine the amount of RACM in a structure, Rule 902 requires that a survey be conducted prior to demolition or renovation unless:

- The structure is otherwise exempt from the rule, or
- Any material that has a propensity to contain asbestos (so-called "suspect material") is treated as if it is RACM.

Surveys must be done by a licensed asbestos consultant and require laboratory analysis. Asbestos consultants are listed in the phone book under "Asbestos Consultants." Large industrial facilities may use non-licensed employees if those employees are trained by the U.S. EPA. Questions regarding the use of non-licensed employees should be directed to the AQMD.

Removal Practices, Removal Plans/Notification and Disposal

If the survey shows that there are asbestos-containing materials present, the SMAQMD recommends leaving it in place.

If it is necessary to disturb the asbestos as part of a renovation, remodel, repair or demolition, Cal OSHA and the Contractors State License Board require 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.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact is considered significant if the proposed project would:

- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials; or
- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated effects of development on hazardous materials, emergency response and aircraft crash hazards. See Chapter 6.6. Implementation of the General Plan may result in the exposure of people to hazards and hazardous materials during construction activities, and exposure of people to hazards and hazardous materials during the life of the General Plan. Impacts identified related to construction activities and operations were found to be less than significant. Policies included in the 2030 general Plan, including PHS 3.1.1 (investigation of sites for contamination) and PHS 3.1.2 (preparation of hazardous materials actions plans when appropriate) were effective in reducing the identified impacts.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Questions A-C

The proposed project includes the development of single family, multi-family, mixed use residential, an elementary school, commercial, parks, and an urban farm. Development of the site is not anticipated to create or emit hazardous emissions or materials. However, the project site was previously mine is used for processing mining related uses, including wash ponds and drying beds. Development of the project could expose proposed residences or construction works to mining related hazards. In addition, a high voltage electrical transmission line traverses the southwester portion of the site. Therefore, a ***potentially significant*** impact would occur.

MITIGATION MEASURES

The impacts will be fully addressed in the Hazards and Hazardous Materials chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Hazards.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
8. <u>HYDROLOGY AND WATER QUALITY</u>			
Would the project:			
A) 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 project?	X		
B) Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood ?	X		

ENVIRONMENTAL SETTING

Water Quality

The Central Valley Regional Water Quality Control Board (RWQCB) regulates surface water and ground water quality in the Sacramento area. The RWQCB implements regulations through a variety of permits intended to reduce, control, or eliminate the pollutant discharges into local waterways, including the Sacramento River and the River’s tributaries.

The City of Sacramento has obtained a National Pollution Discharge Elimination System Permit (Permit) from the RWQCB that requires the reduction of pollutant discharges from municipal drainage systems into local waterways to the maximum extent practicable. The City Stormwater Quality Improvement Program (Program) was developed to maintain the quality of the local water resources and ensure compliance with the Permit. The comprehensive Program includes pollution reduction activities for construction sites, industrial sites, discharges, illicit connections, new development, and municipal activities.

The Program requires the use of Best Management Practices (BMPs) to reduce pollutant discharges during and after construction. These practices include sediment and erosion control measures and housekeeping practices during construction and source control and/or treatment control measures to minimize the increase in urban runoff pollution caused by development of the area. Construction and post-construction BMPs minimize erosion and sedimentation and prevent pollutants such as oils and grease from parking lots, roadways, and buildings from entering the storm drain system. BMPs are approved by Department of Utilities before issuance of grading permit or approval of the improvement plans.

Drainage

The stormwater drainage system of the City of Sacramento is a complex network of natural channels, canals, levees, subsurface drains, and pumping stations. All drainage ultimately flows to the American and Sacramento rivers.

Flooding

The proposed project is not located within the 100-year floodplain according to the Federal Emergency Management Agency (FEMA) website (www.fema.gov).

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to hydrology and water quality may be considered significant if construction and/or implementation of the Proposed Project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- 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.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.7 of the Master EIR evaluates the potential effects of the 2030 General Plan as they relate to surface water, groundwater, flooding, stormwater and water quality. Potential effects include water quality degradation due to construction activities (Impacts 6.7-1, 6.7-2), and exposure of people to flood risks (Impacts 6.7-3, 6.7-4). Policies included in the 2030 General Plan, including a directive for regional cooperation (Policies ER 1.1.2, EC 2.1.1, EC 2.1.1), comprehensive flood management (Policy EC 2.1.14), and construction of adequate drainage facilities with new development (Policy U 4.1.1) were identified that reduced all impacts to a less-than-significant level.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Questions A-C

The project is a former aggregate mine and is has been used for aggregate related wash ponds, drying beds, and a conveyer belt. Development of the project site would require overexcavation and recompaction which would substantially alter the drainage pattern of the site, flood hazards, and water quality. Therefore, a **potentially significant** impact would occur.

MITIGATION MEASURES

The impacts will be fully addressed in the Hydrology and Water Quality chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Hydrology and Water Quality.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
9. NOISE			
Would the project:			
A) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?	X		
B) Result in residential interior noise levels of 45 dBA L _{dn} or greater caused by noise level increases due to the project?	X		
C) Result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance?	X		
D) 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?	X		
E) 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?	X		
F) 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 and highway traffic?	X		

ENVIRONMENTAL SETTING

The project area includes a variety of land uses, including industrial and residential uses. The noise-sensitive receptors within the project area are considered to be the existing residences. The ambient noise environment within the project area is defined primarily by industrial operations surrounding the site and existing noise from traffic on the local roadway network.

Construction and operation of the proposed project would generate noise. As specified in Section 8.68.080(E) of the City of Sacramento Noise Ordinance, construction-generated sound is exempt from limits if construction activities take place between 7:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sundays.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts due to noise may be considered significant if construction and/or implementation of the Proposed Project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- Result in exterior noise levels in the project 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 and highway traffic.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the potential for development under the 2030 General Plan to increase noise levels in the community. New noise sources include vehicular traffic, aircraft, railways, light rail and stationary sources. The general plan policies establish exterior (Policy EC 3.1.1) and interior (EC 3.1.3) noise standards. A variety of policies provide standards for the types of development envisioned in the general plan. See Policy EC 3.1.8, which requires new mixed-use, commercial and industrial development to mitigate the effects of noise from operations on adjoining sensitive land use, and Policy 3.1.9, which calls for the City to limit hours of operations for parks and active recreation areas to minimize disturbance to nearby residences. Notwithstanding application of the general plan policies, noise impacts for exterior noise levels (Impact 6.8-1) and interior noise levels (Impact 6.8-2), and vibration impacts (Impact 6.8-4) were found to be significant and unavoidable.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Question A-F

The City of Sacramento General Plan Noise Element establishes exterior noise level criteria for various land uses (SGPU, AA-27). While the project site would serve a variety of uses, residential uses are considered to be the most noise sensitive use. The normally acceptable exterior community noise exposure standard for residential buildings is 60 dB. The conditionally acceptable exterior noise exposure standard is 60-to-70 dB for residential buildings.

At full buildout, the proposed project would involve the construction of single family residential, multi-family residential, residential mixed-use, and shopping center. The development of the proposed project would result in new vehicle trips, as well as other operational noise (e.g., loading docks, HVAC equipment, etc.), which could adversely impact nearby sensitive receptors. The project site is located within the vicinity of the Mather AFB. In addition, the proposed project would

include construction noise and potential vibration impacts. Therefore, the proposed project would have a ***potentially significant*** impact related to noise.

MITIGATION MEASURES

The impacts will be fully addressed in the Noise chapter of the Aspen 1 EIR.

Findings

The project may have a significant environmental effect on Noise.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<p>10. <u>PUBLIC SERVICES</u></p> <p>Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, roadway maintenance, or other governmental services beyond what was anticipated in the 2030 General Plan?</p>	X		

Environmental Setting

The project site is located in the Fruitridge Broadway area of the City of Sacramento. The City of Sacramento provides fire, police, and parks and recreation services in the vicinity of the proposed project site.

Fire Protection

The Sacramento Fire Department (SFD) provides fire protection services to the entire City and some small areas just outside the City boundaries within the County limits. Contracted areas within SFD’s jurisdiction include the Fruitridge, Natomas, and Pacific Fire Protection Districts.

Under the direction of the Fire Chief, the SFD is divided into three divisions: Office of the Chief, Office of Operations, and Office of Support Services. In 2007, the SFD employed 635 personnel (535 fire suppression personnel and 100 fire prevention personnel and support staff) providing protection and response services to the City’s residents and visitors. The SFD currently operates 23 fire stations, which house 23 engine companies, eight truck companies, one heavy rescue company, and 12 ambulance units.

The SFD is divided into three offices: the Office of the Fire Chief, providing fiscal management, special projects, and public information, the Office of Operations, providing emergency services, special operations, and shift operations, and the Office of Administrative Services, providing support to operations staff, including fire prevention, training, technical services, human resources, and emergency planning.

Police Protection

Police protection services are provided by the Sacramento Police Department (SPD) for areas within the City, and by the County Sheriff’s Department for areas outside the City but within the County of Sacramento. In addition to the SPD and Sheriff’s Department, the California Highway Patrol, UC Davis Medical Center Police Department, and the Regional Transit Police Department provide police protection within the City of Sacramento.

As of May 2008, the SPD was staffed by approximately 798 sworn police officers, 438 civilian staff, and 27 part-time non-career employees.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, school facilities, roadway maintenance, or other governmental services beyond what was anticipated in the 2030 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the potential effects of the 2030 General Plan on various public services. These include parks (Chapter 6.9) and police, fire protection, schools, libraries and emergency services (Chapter 6.10).

The general plan provides that adequate staffing levels for police and fire are important for the long-term health, safety and well-being of the community (Goal PHS 1.1, PHS 2.1). The Master EIR concluded that effects would be less than significant.

General plan policies that call for the City to consider impacts of new development on schools (see, for example, Policy ERC 1.1.2 setting forth locational criteria, and Policy ERC 1.1.5 that encourages joint-use development of facilities) reduced impacts on schools to a less-than-significant level. Impacts on library facilities were also considered less than significant (Impact 6.10-8).

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

The proposed project required approvals General Plan Amendment, prezone, rezone, and annexation from the Sacramento Metro Fire Department and Cordova Parks and Recreation District. Therefore, the project would generate additional demand for fire, police, schools, parks, and other public facilities, and a **potentially significant** impact would occur to public services.

MITIGATION MEASURES

The impacts will be fully addressed in the Public Services and Utilities chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Public Services.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
11. <u>RECREATION</u> Would the project:			
A) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities?	X		
B) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2030 General Plan?	X		

ENVIRONMENTAL SETTING

The project site is currently part of the Teichert Perkins plant and is used for drying beds, wash pond, conveyor belt, and other support facilities.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to recreational resources are considered significant if the proposed project would do either of the following:

- Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or
- Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2030 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.9 of the Master EIR considered the effects of the 2030 General Plan on the City's existing parkland, urban forest, recreational facilities and recreational services. The general plan identified a goal of providing an integrated park and recreation system in the City (Goal ERC 2.1). New residential development will be required to dedicate land, pay in-lieu fees or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities. (Policy ERC 2.2.4) Impacts were considered less than significant after application of the applicable policies. (Impacts 6.9-1 and 6.9-2)

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Questions A-B

The proposed project includes the construction of residential, commercial, mixed use, shopping, school, park, and urban farm uses. However, the project requires annexation from the Cordova

Parks and Recreation District. Therefore, the project would generate additional demand for parks and a ***potentially significant*** impact would occur to public services.

MITIGATION MEASURES

The impacts will be fully addressed in the Public Services and Utilities chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Recreation.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
12. TRANSPORTATION AND CIRCULATION			
Would the project:			
A) Roadway segments: degrade peak period Level of Service (LOS) from A,B,C or D (without the 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.	X		
B) Intersections: degrade peak period level of service 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.?	X		
C) Freeway facilities: off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway; 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; or the expected ramp queue is greater than the storage capacity?	X		
D) Transit: adversely affect public transit operations or fail to adequately provide for access to public?	X		
E) Bicycle facilities: adversely affect bicycle travel, bicycle paths or fail to adequately provide for access by bicycle?	X		
F) Pedestrian: adversely affect pedestrian travel, pedestrian paths or fail to adequately provide for access by pedestrians?	X		

ENVIRONMENTAL SETTING

Currently, the project site consists of undeveloped land. The 2030 General Plan and Fruitridge Broadway Community Plan designation for the project site is Traditional Neighborhood Density Residential and Suburban Center.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts resulting from changes in transportation or circulation may be considered significant if construction and/or implementation of the Proposed Project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

Roadway Segments

- A) The traffic generated by a project degrades peak period Level of Service (LOS) from A,B,C or D (without the project) to E or F (with project) or
- B) 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

- The traffic generated by a project degrades peak period level of service 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.

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;
- 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; or
- The expected ramp queue is greater than the storage capacity.

Transit

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

Bicycle Facilities

- Adversely affect bicycle travel, bicycle paths or
- Fail to adequately provide for access by bicycle.

Pedestrian Circulation

- Adversely affect pedestrian travel, pedestrian paths or
- Fail to adequately provide for access by pedestrians.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Transportation and circulation were discussed in the Master EIR in Chapter 6.12. Various modes of travel were included in the analysis, including vehicular, transit, bicycle, pedestrian and aviation components. The analysis included consideration of roadway capacity and identification of levels of service, and effects of the 2030 General Plan on the public transportation system. Provisions of the 2030 General Plan that provide substantial guidance include Goal Mobility 1.1, calling for a transportation system that is effectively planned,

managed, operated and maintained, promotion of multimodal choices (Policy M 1.2.1), identification of level of service standards (Policy M 1.2.2), development of a fair share funding system for Caltrans facilities (Policy M 1.5.6) and development of complete streets (Goal M 4.2). While the general plan includes numerous policies that direct the development of the City's transportation system, the Master EIR concluded that the general plan development would result in significant and unavoidable effects. See Impacts 6.12-1, 6.12-8 (roadway segments in the City), Impacts 6.12-2, 6.12-9 (roadway segments in neighboring jurisdictions), and Impacts 6.12-3, 6.12-10 (freeway segments).

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Question A, B

The proposed project includes the development of residential, mixed-use, commercial, school, park, and urban farm uses. Although the proposed project site was anticipated for development in the SGPU, the proposed changes to land use designations associated with the project, particularly the rezone of the site from industrial to residential, mixed-use, shopping center, school, parks, and urban farm zoning, could increase traffic on surrounding roadways above the level anticipated for the site in the SGPU. This potential increase in traffic associated with the project could adversely affect the LOS as nearby intersections and roadways segments. Therefore, the impact would be considered ***potentially significant***.

Questions C

The proposed project would involve the construction of a residential, mixed use, shopping center planned development over the entire project site, with multiple driveways, circulation systems, and access points near Jackson Highway. Further study of the proposed project design would be required to adequately address impacts related to freeway facilities within the project area. Therefore, a ***potentially significant*** impact would be associated with the proposed development.

Question D-F

The proposed project would include the construction residential, mixed use, shopping center, park, school, and urban farm uses. Construction activities could create potential hazards to pedestrians and bicyclists, as well as potentially result in conflicts with adopted policies related to public transportation in the vicinity of the proposed project. Therefore, the proposed project would result in a ***potentially significant*** impact to alternative forms of transportation, pedestrians, and bicyclists.

MITIGATION MEASURES

The impacts will be fully addressed in the Transportation and Circulation chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Transportation and Circulation.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
13. UTILITIES AND SERVICE SYSTEMS			
Would the project:			
A) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments?	X		
B) 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?	X		

ENVIRONMENTAL SETTING

Water

The City of Sacramento provides water to the majority of the people within the city limits. Municipal water is received from the American and Sacramento rivers. Surface water is treated at two facilities, E.A. Fairbairn Water Treatment Plant (FWTP) and the Sacramento River Water Treatment Plant (SRWTP). In 2005, the FWTP processed 200 million gallons per day of water for domestic uses, while the SRWTP processed 110 million gallons per day. These two water treatment plants also maintain on-site storage in case of emergencies, totaling more than 32 million gallons of water.

The City also operates 32 active municipal groundwater wells. These wells are used to contribute to the water supply during peak days and can process between 30 and 33 million gallons of water per day. The City also maintains 15 enclosed water storage reservoirs that are used to meet water demands for fire flows, emergencies and peak hours when the City exceeds the maximum day supply rates. These reservoirs total 85 million gallons of water.

Sewer

The Central City is located within the City of Sacramento Combined Sewer System area (CSS). This is a 100-year-old sewer system which carries both wastewater and stormwater through a common conveyance system. During heavy rainfall events, the combined sewer system has historically overflowed into City Streets and/or the Sacramento River. The proposed project will place an 18-inch-diameter storm drain pipe below the road. Small site drains would convey water from the plaza to the main drain pipe.

Drainage

The City of Sacramento has obtained a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. This permit requires that the City employ Best Management Practices (BMPs) in order to reduce pollutants found in urban storm runoff. BMPs are approved by the Sacramento Department of Utilities. The R Street project area does not have adequate drainage and is subject to occasional ponding and flooding during storm events. The R Street Urban Design Plan provides measures to accommodate new standards for streetscape improvements. The guidelines include new gutters and direct drainage to intersections where existing drop inlets and drainage facilities are located. The

proposed project will construct a new underground drainage system with drain inlets and laterals to accommodate street run-off and site drains for the plaza.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, or school facilities beyond what was anticipated in the 2030 General Plan:

- 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.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the effects of development under the 2030 General Plan on water supply, sewer and storm drainage, solid waste, electricity, natural gas and telecommunications. See Chapter 6.11.

The Master EIR evaluated the impacts of increased demand for water that would occur with development under the 2030 General Plan. Policies in the general plan would reduce the impact generally to a less-than-significant level (see Impact 6.11-1) but the need for new water supply facilities results in a significant and unavoidable effect (Impact 6.11-2). The potential need for expansion of wastewater treatment facilities was identified as having a significant and unavoidable effect (Impacts 6.11-4, 6.11-5). Impacts on solid waste facilities were less than significant (Impacts 6.11-7, 6.11-8). Implementation of energy efficient standards as set forth in Titles 20 and 24 of the California Code of Regulations for residential and non-residential buildings, would reduce effects for energy to a less-than-significant level.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

None.

ANSWERS TO CHECKLIST QUESTIONS

Questions A, B

The proposed project includes the development of residential, mixed-use, commercial, school, and park uses. Although the proposed project site has been planned for development in the SGPU, the proposed changes to land use designations associated with the project, particularly the rezone of the site from Heavy Industrial to residential, mixed-use, shopping center, school, parks, and urban farm zoning, could increase stormwater generation, water demand, and wastewater generated greater than anticipated for the site in the SGPU. Therefore, development of the project would result in a **potentially significant** impact related to utilities and service systems.

MITIGATION MEASURES

The impacts will be fully addressed in the Public Services and Utilities chapter of the Aspen 1 EIR.

FINDINGS

The project may have a significant environmental effect on Utilities and Service Systems.

MANDATORY FINDINGS OF SIGNIFICANCE

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
14. <u>MANDATORY FINDINGS OF SIGNIFICANCE</u>			
A.) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X		
B.) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	X		
C.) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X		

Answers to Checklist Questions

Question A

As described in the biology and cultural resources discussion of this document, the proposed project could impact the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, the impact would be ***potentially significant***.

Question B, C

At full buildout, the proposed project includes 59.1 acres of Single-Family Residential, 15.1 acres of Multi-Family Residential, 10.5 acres of Residential Mixed-Use, 10.8 acres of Shopping Center, 34.4 acres of Open Space/Park, 8.8 acres of elementary school, and 26.8 acres of Urban Farm. The project site was anticipated for urban uses in the SGPU. However, the proposed project includes changes to the land use designations and zoning. Therefore, the proposed project does have the potential to achieve short-term, to the disadvantage of long-term, environmental goals. The proposed project may also have impacts that are individually limited but cumulatively considerable. Therefore, impacts from the project could be ***potentially significant***

Findings

The proposed project would result in *potentially significant* impacts and will be discussed in the appropriate sections of the Aspen I EIR.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by this project.

X	Aesthetics	X	Hazards
X	Air Quality	X	Noise
X	Biological Resources	X	Public Services
X	Cultural Resources	X	Recreation
X	Energy and Mineral Resources	X	Transportation/Circulation
X	Geology and Soils	X	Utilities and Service Systems
X	Hydrology and Water Quality		
	None Identified		

SECTION V - DETERMINATION

On the basis of the initial study:

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed project is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; and (c) the proposed project will not have any project-specific additional significant environmental effects not previously examined in the Master EIR, and no new mitigation measures or alternatives will be required. Mitigation measures from the Master EIR will be applied to the proposed project as appropriate. Notice shall be provided pursuant to CEQA Guidelines Section 15087. (CEQA Guidelines Section 15177(b))

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed project is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project will have additional significant environmental effects not previously examined in the Master EIR. A Mitigated Negative Declaration will be prepared. Mitigation measures from the Master EIR will be applied to the project as appropriate, and additional feasible mitigation measures and alternatives will be incorporated to revise the proposed project before the negative declaration is circulated for public review, to avoid or mitigate the identified effects to a level of insignificance. (CEQA Guidelines Section 15178(b))

X

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project **will** have additional significant environmental effects not previously examined in the Master EIR. A focused EIR shall be prepared which shall incorporate by reference the Master EIR and analyze only the project-specific significant environmental effects and any new or additional mitigation measures or alternatives that were not identified and analyzed in the Master EIR. Mitigation measures from the Master EIR will be applied to the project as appropriate. (CEQA Guidelines Section 15178(c))

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed project is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are not adequate for the proposed project; and (d) the proposed project will have additional significant environmental effects not previously examined in the Master EIR. An EIR shall be prepared, which shall tier off of the Master EIR to the extent feasible. (CEQA Guidelines Section 15178(e))

Signature

Date

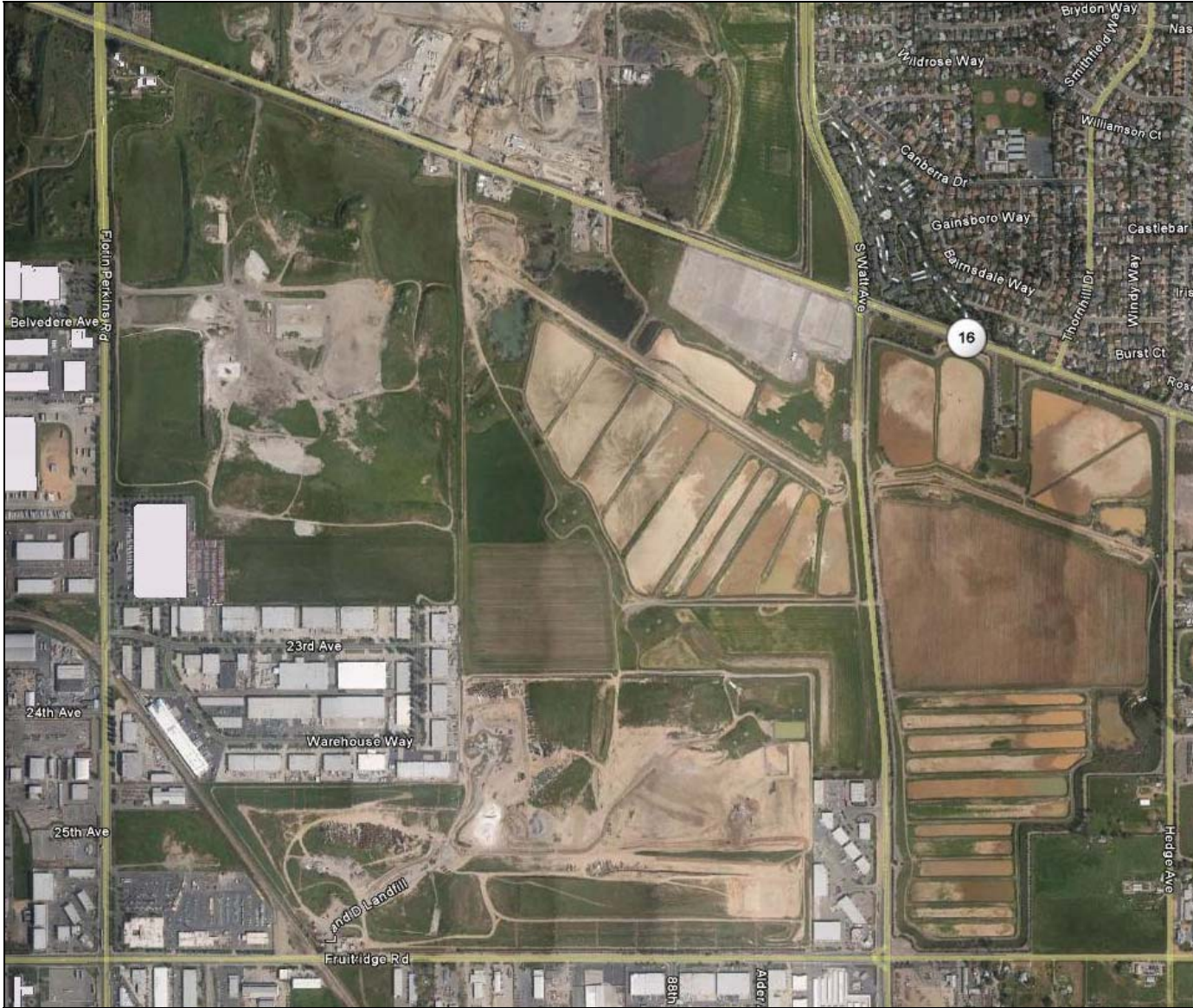
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REFERENCES CITED

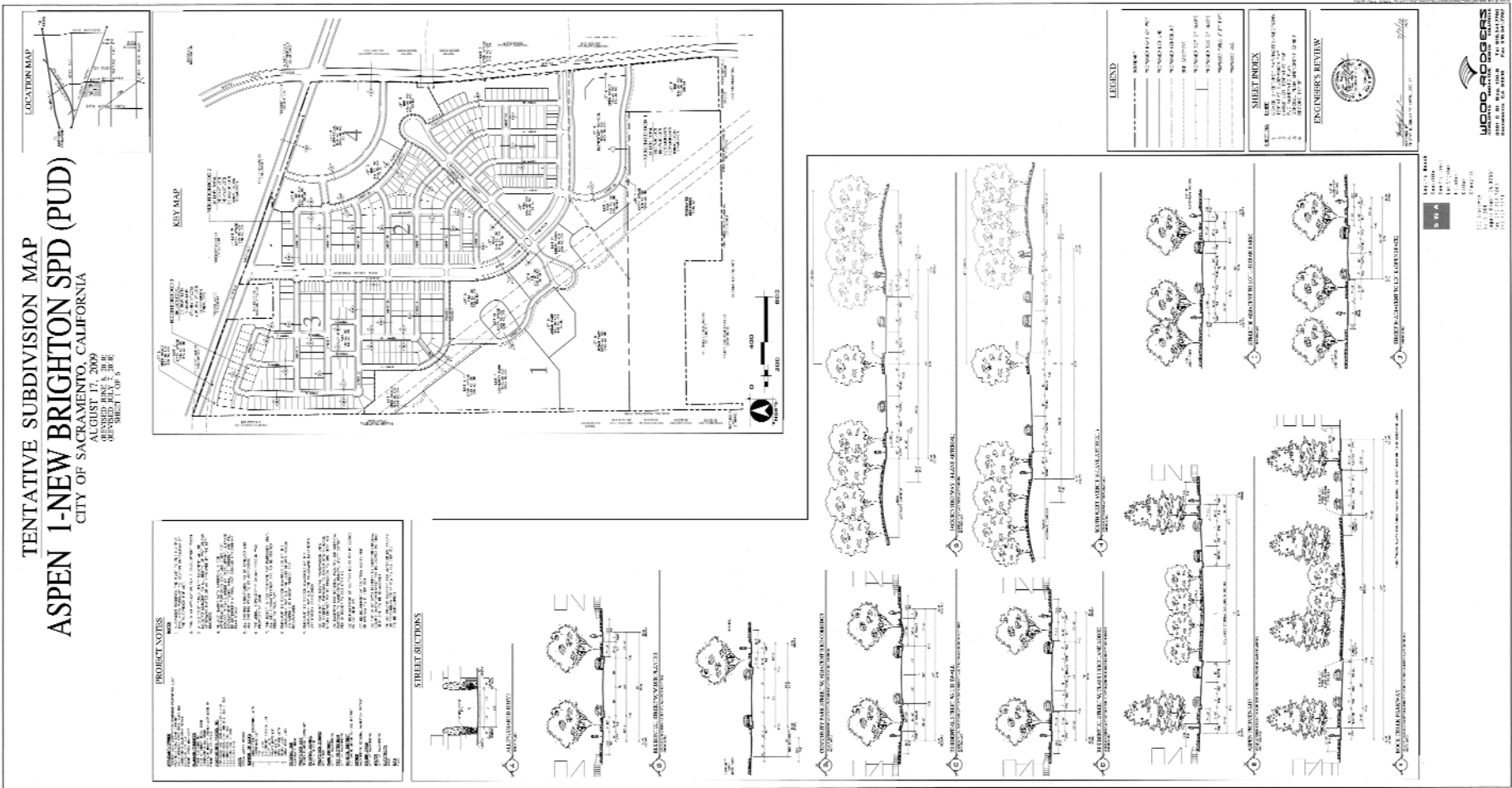
City of Sacramento General Plan Master EIR, March 2009.

Sacramento 2030 General Plan, March 2009.

ATTACHMENT 1 – PROJECT LOCATION



ATTACHMENT 2 – TENTATIVE SUBDIVISION MAP



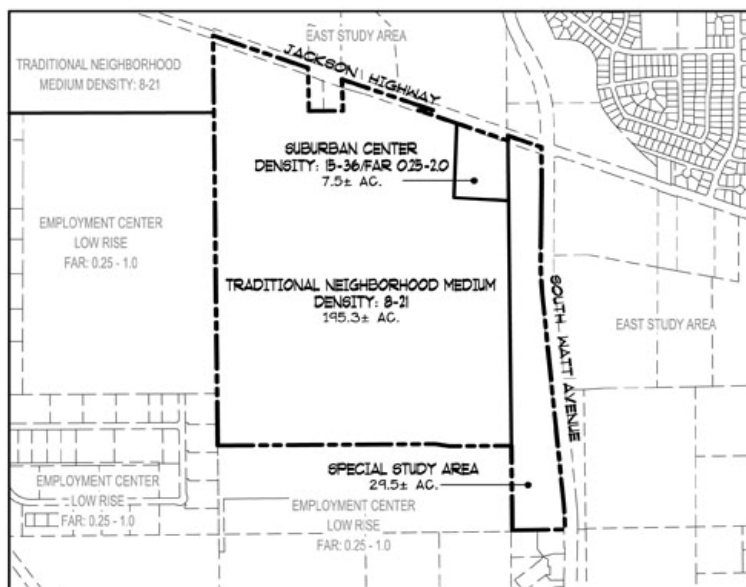
ATTACHMENT 3 – GENERAL PLAN AMENDMENT EXHIBIT

General Plan Amendment Exhibit ASPEN 1-NEW BRIGHTON SPD (PUD)

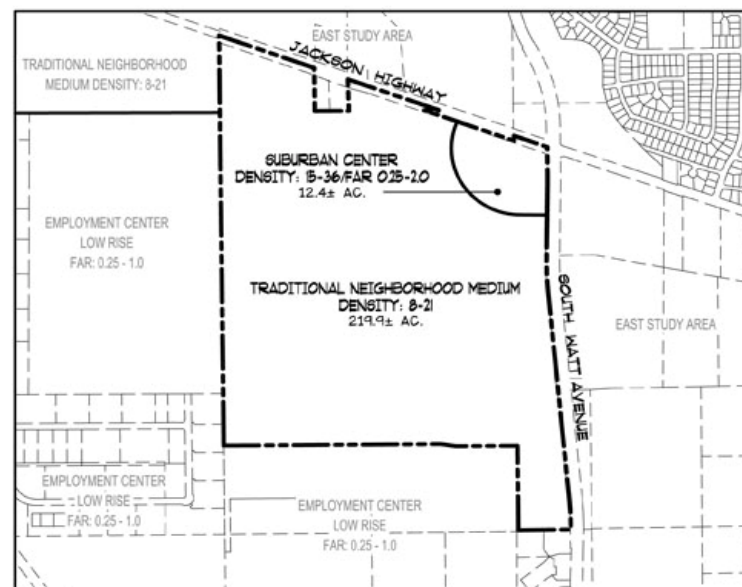
City of Sacramento, California

June 8, 2010

SHEET 5 OF 6



Existing General Plan



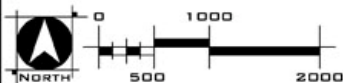
Proposed General Plan

SHEET INDEX

SHEET NO.	EXHIBIT
1.	COVER SHEET/KEY MAP/NOTES/SECTIONS
2.	TENTATIVE SUBDIVISION MAP
3.	LARGE LOT TENTATIVE MAP
4.	PUD SCHEMATIC PLAN
5.	GENERAL PLAN AMENDMENT EXHIBIT
6.	REZONE EXHIBIT

SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING	PROPOSED	DIFFERENCE
TRADITIONAL NEIGHBORHOOD MEDIUM DENSITY 8-21		195.3	219.9	+24.6
SUBURBAN CENTER DENSITY 15-36/FAR 0.25-2.0		7.5	12.4	+4.9
EAST STUDY AREA		24.5	0	-24.5
		232.3 ± Acres	232.3 ± Acres	

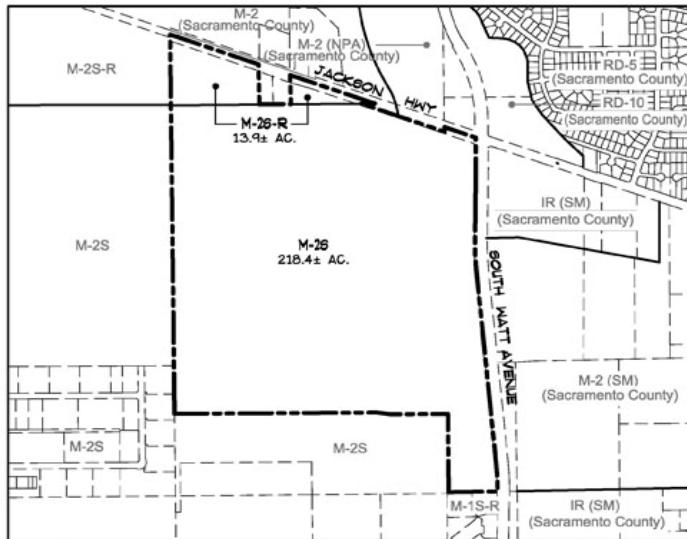


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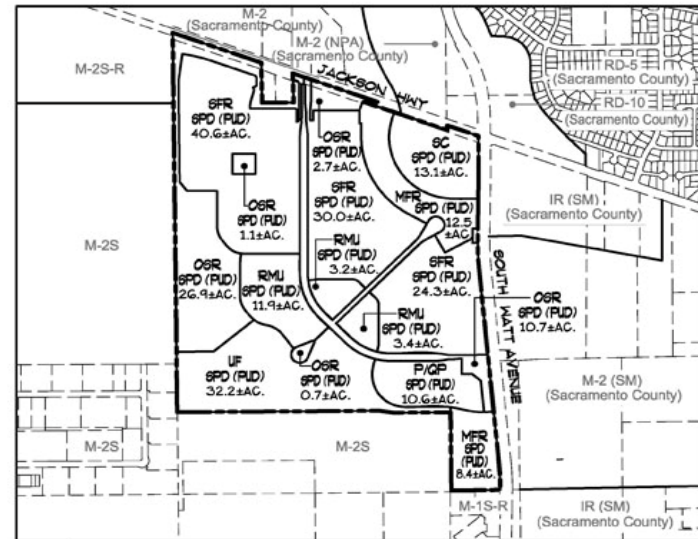
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ATTACHMENT 4 – REZONE EXHIBIT

Rezone Exhibit ASPEN 1-NEW BRIGHTON SPD (PUD) City of Sacramento, California June 8, 2010 SHEET 6 OF 6



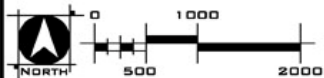
Existing Zoning



Proposed Zoning

SHEET INDEX	
SHEET NO.	DESCRIPTION
1.	COVER SHEET/KEY MAP/NOTES/SECTIONS
2.	TENTATIVE SUBDIVISION MAP
3.	LARGE LOT TENTATIVE MAP
4.	PUD SCHEMATIC PLAN
5.	GENERAL PLAN AMENDMENT EXHIBIT
6.	REZONE EXHIBIT

SUMMARY TABLE				
DESIGNATION	LAND USE	EXISTING	PROPOSED	DIFFERENCE
M-2S	HEAVY INDUSTRIAL	218.4	0	-218.4
M-2S-R	HEAVY INDUSTRIAL	13.9	0	-13.9
SFR SPD (PUD)	SINGLE FAMILY RESIDENTIAL	0	94.9	+94.9
MFR SPD (PUD)	MULTI-FAMILY RESIDENTIAL	0	20.9	+20.9
RMU SPD (PUD)	RESIDENTIAL MIXED USE	0	18.5	+18.5
SC SPD (PUD)	SHOPPING CENTER	0	13.1	+13.1
OSR SPD (PUD)	PARKS/OPEN SPACE	0	42.1	+42.1
P/O P SPD (PUD)	ELEMENTARY SCHOOL	0	30.6	+30.6
UF SPD (PUD)	URBAN FARM	0	32.2	+32.2
		232.3 ± Acres	232.3 ± Acres	



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