



Aspen 1-New Brighton

Project# P09-038/M09-032

State Clearinghouse # 2010072058

Final Environmental Impact Report (Revised)

PREPARED FOR THE
CITY OF SACRAMENTO

JULY 2015



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

State Clearinghouse # 2010072058

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1. INTRODUCTION

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INTRODUCTION

1.0 INTRODUCTION

This Final Environmental Impact Report (Final EIR) contains the public and agency comments received during the public review period for the Aspen 1-New Brighton Draft EIR, and responses to each of those comments. The EIR is an informational document intended to disclose to the City of Sacramento (City) and the public the environmental consequences of approving and implementing the Aspen 1-New Brighton Project (proposed project) or one of the alternatives to the project described in the Draft EIR. All written comments received during the public review period (July 18, 2012, through August 31, 2012) on the Draft EIR are addressed in this Final EIR. The responses in the Final EIR clarify, correct, and/or amplify text in the Draft EIR, as appropriate. Also included are text changes made at the initiative of the Lead Agency (City of Sacramento). The changes (summarized in Chapter 2) do not alter the conclusions of the Draft EIR. This document has been prepared in accordance with the California Environmental Quality Act (CEQA; California Public Resources Code (PRC), Sections 21000–21177).

1.1 BACKGROUND

Under CEQA, the Lead Agency must prepare and certify a Final EIR prior to approving a proposed project. The contents of a Final EIR are specified in Section 15132 of the CEQA Guidelines, which states that the Final EIR shall consist of:

- a) The Draft EIR or a revision of the Draft;
- b) Comments and recommendations received on the Draft EIR either verbatim or in summary;
- c) A list of persons, organizations, and public agencies commenting on the Draft EIR;
- d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and
- e) Any other information added by the Lead Agency.

The Lead Agency must provide each agency that commented on the Draft EIR with a copy of the Lead Agency's response to such comments a minimum of 10-days before certifying the Final EIR.

Use of the Final EIR

The Final EIR allows the public and the City an opportunity to review revisions to the Draft EIR and the Responses to Comments. The Final EIR serves as the environmental document to inform the City Council's consideration of the proposed project, either in whole or in part, or one of the alternatives to the project discussed in the Draft EIR.

As required by Section 15090 (a) (1)-(3) of the CEQA Guidelines, a Lead Agency, in certifying a Final EIR, must make the following three determinations:

1. The Final EIR has been completed in compliance with CEQA;
2. The Final EIR was presented to the decision-making body of the Lead Agency, and the decision-making body reviewed and considered the information in the Final EIR prior to approving the project; and
3. The Final EIR reflects the Lead Agency's independent judgment and analysis.

As required by Section 15091 of the CEQA Guidelines, no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings (Findings of Fact) for each of those significant effects, accompanied by a brief explanation of the rationale for each finding supported by substantial evidence in the record.

The possible findings are:

1. 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;
2. Such changes or alterations are within the responsibility and jurisdiction of another 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 other agency; or
3. 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.

Additionally, pursuant to Section 15093(b) of the CEQA Guidelines, when a Lead Agency approves a project that would result in significant unavoidable impacts that are disclosed in the Final EIR, the agency must state in writing the reasons supporting the action. The Statement of Overriding Considerations shall be supported by substantial evidence in the Lead Agency's administrative record. Here, however, because the proposed project would not result in significant and unavoidable impacts (assuming the City Council finds all proposed mitigation measures to be feasible), the City Council would not be required to adopt a Statement of Overriding Considerations if it approves the proposed project (See also Public Resources Code Section 21081).

The Findings of Fact are included in a separate document that will be considered for adoption by the City's decision makers at the time of project approval.

Changes Due to City of Sacramento General Plan Update

Following the public review period for the proposed project Draft EIR, the following unrelated actions by the City of Sacramento occurred:

- Adoption of the 2035 General Plan and certification of the 2035 General Plan Master EIR on March 3, 2015; and
- Adoption of the Planning and Development Code on April 9, 2013.

The 2035 General Plan retains the overall land use and policy direction established in the 2030 General Plan, but contains a refinement and updating of the goals and policies.

As part of this Final EIR, the analysis and conclusions of the Draft EIR have been taken into consideration in the context of the 2035 General Plan and associated Master EIR. Because physical modifications to the environment have not occurred and modifications to the proposed project would not occur as a result of the City's adoption of the 2035 General Plan, Master EIR, or Planning and Development Code, the majority of impacts associated with buildout of the proposed project would remain the same as analyzed within the Draft EIR. For example, because the environment in the vicinity of the project site has not and would not be modified from what was assumed in the Draft EIR, the project site's setting associated with biological resources, cultural resources, geological conditions, potential hazards, site drainage, noise environment, parks, public services, visual resources, utilities, service systems, and energy would remain the same. In addition, because the proposed project would not be modified, the same potential to affect biological resources, cultural resources, site drainage, the noise environment, parks, public services, the transportation and circulation system, visual quality of the area, and utilities, service systems, and energy would occur. Similarly the same potential for the proposed project to be affected by geological conditions, potential hazards, and noise sources in the vicinity would occur. Accordingly, the analysis and conclusions related to the aforementioned environmental resource areas would remain adequate.

The 2035 General Plan incorporated measures and actions from the City of Sacramento Climate Action Plan (CAP) into Appendix B, General Plan CAP Policies and Programs, of the General Plan Update. Appendix B includes all City-Wide policies and programs that are supportive of reducing GHG emissions. The General Plan CAP Policies and Programs per the General Plan Update supersede the City's CAP. Rather than compliance and consistency with the CAP, all proposed projects must now be compliant and consistent with the General Plan CAP Policies and Programs outlined in Appendix B of the General Plan Update. As discussed on page of 5.1-37 of Chapter 5.1, Air Quality and Climate Change, of the Draft EIR, the proposed project land uses would not change from the land uses assumed for the project site in the 2030 General Plan and the GHG emissions generated by the project were accounted for in the MEIR analysis. Because the project would not change with adoption of the 2035 General Plan, the same conclusion would remain. In addition, the project design incorporates features that would reduce emissions in compliance with Assembly Bill 32 reduction requirements, which would be consistent with the 2035 General Plan CAP Policies and Programs. Therefore, the analysis and conclusions related to climate change identified within the Draft EIR remain adequate.

The 2035 General Plan included an update to the traffic level of service (LOS) policy (Policy M 1.2.2) in order to implement a flexible, context-sensitive LOS standard, as well as maximize the efficiency of the roadway network for all transportation modes while minimizing potential negative impacts. The citywide traffic operational goal remains at LOS D, while new areas and streets were identified where the City has established variable LOS thresholds appropriate for the unique characteristics of the City's diverse neighborhoods and communities. The new areas included in Policy M 1.2.2 are as follows:

- A. Core Area (Central City Community Plan Area) – LOS F allowed
- B. Priority Investment Areas – LOS F allowed
- C. LOS E Roadways – LOS E is allowed for a list of roadways because expansion of the roadways would cause undesirable impacts or conflict with other community values. LOS E is also allowed on all roadway segments and associated intersections located within ½ mile walking distance of light rail stations.

- D. Other LOS F Roadways – LOS F is allowed for a list of roadways because expansion of the roadways would cause undesirable impacts or conflict with other community values.
- E. If maintaining the above LOS standards 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, promote non-vehicular transportation, and/or implement vehicle trip reduction measures as part of a development project or a city-initiated project. Additionally the City shall not expand the physical capacity of the planned roadway network to accommodate a project beyond that identified in Figure M4 and M4a (2035 General Plan Roadway Classification and Lanes).

In relation to the Draft EIR analysis for the proposed project, the 2035 General Plan Policy M 1.2.2.D includes the following LOS F Roadways where LOS F is allowed:

- Folsom Boulevard: Howe Avenue to Jackson Highway;
- Folsom Boulevard: US 50 to Howe Avenue; and
- South Watt Avenue: US 50 to Kiefer Boulevard.

LOS F is allowed for the above City roadways per 2035 General Plan Policy M 1.2.2.D, because expansion of the roadways would cause undesirable impacts or conflict with other community values. It is important to note that 2035 General Plan Policy M 1.2.2.E applies equally to aforementioned roadway segments by accepting LOS F conditions provided that provisions are made to improve the overall system, promote non-vehicular transportation, and/or implement vehicle trip reduction measures as part of a development project. The transportation facilities located in Sacramento County and Caltrans jurisdiction do not have any changes of thresholds of significance. As such, all impacts identified for facilities located in Sacramento County and Caltrans jurisdiction would remain as identified in the Draft EIR.

The City Department of Public Works has reviewed the Transportation and Circulation chapter of the Draft EIR for consistency with the 2035 General Plan policies to determine if any of the transportation impacts identified as significant unavoidable per City of Sacramento 2030 General Plan would have a less than significant impact with the 2035 General Plan policies applied (see Appendix A). According to the Department of Public Works review, all impacts identified as significant and unavoidable in the Transportation and Circulation chapter of the Draft EIR would remain significant and unavoidable with the 2035 General Plan policies. It should be noted that, per 2035 General Plan Policy M 1.2.2.E, the project must still contribute to improving the overall system, promoting non-vehicular transportation, and/or implementing vehicle trip reduction measures. Consistent with Policy M 1.2.2.E, the proposed 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, and places services close to residences.

Overall, the City's adoption of the 2035 General Plan, Master EIR, or Planning and Development Code would not result in any changes, new information of substantial importance, new or more severe impacts, new mitigation measures, or new or revised alternatives that would require major revisions to the Draft EIR.

1.2 SUMMARY OF TEXT CHANGES

Chapter 2 in this Final EIR, Text Changes to the Draft EIR, identifies all changes made to the document by section. These text changes provide additional clarity in response to comments received on the Draft EIR as well as provide revisions to the project made by the project applicant, but do not change the significance of the conclusions presented in the Draft EIR.

1.3 RESPONSES TO COMMENTS

A list of public agencies and individuals commenting on the Draft EIR is provided in Chapter 3 in this Final EIR. A total of 15 comment letters were received and each letter and response is included in Chapter 3. Each comment letter is bracketed, and is followed by numbered responses to each bracketed comment. For example, the first comment in Letter 1 would have the following format: 1-1, and would have a corresponding response. As the subject matter of one topic may overlap between letters, the reader must occasionally refer to one or more responses to review all the information on a given subject. To assist the reader, cross-references to other comments are provided, where needed.

2. TEXT CHANGES TO THE DRAFT EIR

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TEXT CHANGES TO THE DRAFT EIR

2.0 INTRODUCTION

This chapter presents minor corrections, additions, and revisions made to the Draft EIR initiated by the Lead Agency (City of Sacramento), reviewing agencies, the public, and/or consultants based on their review. New text is double underlined and deleted text is ~~struck through~~, unless otherwise noted in the introduction preceding the text change. Text changes are presented in the section and page order in which they appear in the Draft EIR.

The changes made to the Draft EIR represent minor clarifications/amplifications of the analysis contained in the Draft EIR based on on-going review by City staff and/or consultant or applicant review and do not constitute significant new information that, in accordance with CEQA Guidelines Section 15088.5, would trigger the need to recirculate portions or all of the Draft EIR.

2.1 DESCRIPTION OF CHANGES

The inside cover of the Draft EIR has been revised as follows:

Project Applicant

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Sacramento, CA 9586433

Contact:

Mike Isle
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The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

1 INTRODUCTION

For clarification purposes, Section 1.2, Project Description, on page 1-1 of Chapter 1, Introduction, of the Draft EIR is hereby revised as follows:

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, open space, and urban farm uses. The project would include ~~43.5~~ 59.1 net acres of land designated ~~Single-Family~~

Low Density Residential located in the northwest, center, and southeast portions of the project site, as well as (including 8.8 net acres to facilitate the development of an elementary school, with an underlying designation of Single Family Residential) and In addition, 43.4 15.1 net acres of land designated Multi-Family High Density Residential/ and 13.5 net acres of land designated Residential Mixed Use would be located in the central and southern portions of the project site. The project would include the following additional uses: 43.4 10.8 net acres of land designated Shopping Center Commercial located in the northeast portion of the site; 44.4 14.5 net acres of land designated Parks/Open Space in three separate areas throughout the project site; 28.5 net acres of land designated Open Space/Medians located throughout project site; and 28.2 23.8 net acres of land designated Urban Farm in the southwest portion of the project site. In addition Furthermore, 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 and Park District. Additionally, the California Public Utilities Commission (PUC) would be requested to approve a modification of the California American (Cal-Am) Water Company service territory to remove the annexation portion of the project site from Cal-Am's boundaries. This is a discretionary action by the PUC. It may occur prior to LAFCo proceedings, or be imposed as a term and condition by the Commission. For more details regarding the proposed project, please see Chapter 3, Project Description, of this Draft EIR.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

Page 1-1 of the Introduction Chapter of the Draft EIR, under Section 1.2, Project Description, is hereby revised as follows:

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(annexation and related detachments), 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 above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

Page 1-2 of the Introduction Chapter of the Draft EIR, under Section 1.5, Use of Previously Prepared Environmental Documentation, is hereby revised as follows:

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

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

Page 1-5 of the Introduction Chapter of the Draft EIR, under Section 1.7, Scope of the Draft EIR, paragraph five, is hereby revised as follows:

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-reorganization~~ annexation and related detachments.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

Page 1-10 of the Introduction Chapter of the Draft EIR, under Section 1.11, Organization of the Draft EIR, is revised as follows:

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. In a separate action, the PUC would consider approval of a modification of the Cal-Am Water service territory to remove the annexation portion of the project site from Cal-Am's boundaries.

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

2 EXECUTIVE SUMMARY

For clarification purposes, the second paragraph on page 2-1 of Chapter 2, Executive Summary, of the Draft EIR is hereby revised as follows:

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 gross 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 19960s 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 above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the third paragraph on page 2-1 of Chapter 2, Executive Summary, of the Draft EIR is hereby revised as follows:

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. It should be noted that the Florin Perkins Material Recovery Facility (MRF) / Large Volume Transfer Station (LVTS) currently exists at the former Florin Perkins Landfill site.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the last paragraph on page 2-1, as well as the second full paragraph on page 2-2, of Chapter 2, Executive Summary, of the Draft EIR are hereby revised as follows:

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, open space, and urban farm uses. The project would include ~~133.5~~ 59.1 net acres of land designated ~~Single-Family Low Density Residential~~ located in the northwest, center, and southeast portions of the project site, as well as (including 8.8 net acres to facilitate the development of an elementary school, with an underlying designation of Single-Family Residential) and In addition, 43.4 15.1 net acres of land designated Multi-Family High Density Residential/ and 13.5 net acres of land designated Residential Mixed Use would be located in the central and southern portions of the project site. The project would include the following additional uses: ~~43.4~~ 10.8 net acres of land designated ~~Shopping Center Commercial~~ located in the northeast portion of the site; ~~44.4~~ 14.5 net acres of land designated ~~Parks/Open Space~~ in three separate areas throughout the project site; 28.5 net acres of land designated Open Space/Medians located throughout project site; and ~~28.2~~ 23.8 net acres of land designated Urban Farm in the southwest portion of the project site. Additionally, the applicant is requesting modified street standards.

A rezone is required to redesignate the site from Heavy Industrial (M-2S-SWR and M-2S-R-SWR), as well as a prezone of the 29.5 acres located outside of the City from Heavy Industrial (M-2 [SM]) and Industrial Reserve Surface Mining Combining Zone (IR [SM]). The site would be zoned to Single-Family Residential (R-1A SPD [PUD]), Multi-Family Residential/Mixed Use (RMXR-3 SPD [PUD]), Residential Mixed Use (RMX SPD [PUD]), Shopping Center (SC SPD [PUD]), Parks/ Agricultural Open Space (A-OS AOS SPD [PUD]), and Agricultural (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 above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

The fifth paragraph on page 2-2 of the Executive Summary Chapter of the Draft EIR is hereby revised as follows:

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. In a separate action, the PUC would consider approval of a

modification of the Cal-Am Water service territory to remove the annexation portion of the project site from Cal-Am's boundaries. As part of the ~~annexation reorganization~~ annexation and related detachments, a property tax exchange agreement between the City of Sacramento and Sacramento County will be required.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Page 2-8 of the Executive Summary Chapter of the Draft EIR, under Section 2.3, Summary of Project Alternatives, is hereby revised as follows:

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-reorganization~~ annexation and related detachments 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 above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

The second paragraph on page 2-9 of the Executive Summary Chapter of the Draft EIR, is hereby revised as follows:

A rezone would still be required in order to be consistent with the existing General Plan land use designations and rezoning of the ~~annexation reorganization~~ annexation and related detachments area.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

As a result of the revisions to mitigation measures made in response to comments, as well as staff initiated revisions, Table 2-1 in Chapter 2, Executive Summary, of the Draft EIR is hereby revised for the following chapters, as shown on the following pages:

- Chapter 5.1, Air Quality and Climate Change, Impact 5.1-1 on page 2-11, Impact 5.1-2 on page 2-14, Impact 5.1-5 on page 2-15, and Impact 5.1-7 on page 2-16;
- Chapter 5.2, Biological Resources, Impact 5.2-1 on page 2-17, Impact 5.2-2 on page 2-17, and 5.2-11 on page 2-20;
- Chapter 5.6, Hydrology, Water Quality, and Drainage, Impact 5.6-4 on page 2-26;
- Chapter 5.7, Noise and Vibration, Impact 5.7-2 on page 2-28; and
- Chapter 5.10, Transportation and Circulation, Impact 5.10-1 on page 2-33, Impact 5.10-19 on page 2-35, Impact 5.10-20 on page 2-37, Impact 5.10-22 on page 2-41, Impact 5.10-23 on page 2-41, Impact 5.10-25 on page 2-41, Impact 5.10-30 on page 2-45, Impact 5.10-31 on page 2-45, and Impact 5.10-33 on page 2-45.

The revisions do not result in changes to the adequacy of the analysis or the conclusions contained in the Draft EIR.

**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) 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: <ul style="list-style-type: none"> • 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 	LS

**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>miles per hour (mph);</i></p> <ul style="list-style-type: none"> • 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. <p>5.1-1(ba) Prior to the issuance of a grading permit, tThe applicant shall submit a SMAQMD-approved plan, which demonstrates that heavy duty off-road vehicles used in</p>	

**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>construction of the project achieve a project-wide fleet-average 20 percent NO_x reduction and 405 percent particulate reduction compared to the most recent CARB fleet average at the time of construction. <u>within 30 days of issuance of the grading permit, but at least within 10 business days prior to use of equipment on the project.</u> 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, tThe 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. <u>within 30 days of issuance of the grading permit, but at least within 10 business days prior to use of equipment on the project.</u> 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>	

**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(ec) 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 within 30 days of issuance of the grading permit, but at least within 10 business days prior to use of equipment on the project. 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, and the most 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>	
<p>5.1-2 Impacts related to an increase in PM₁₀ and PM_{2.5} concentrations during construction.</p>	<p>S</p>	<p>5.1-2 Implement Mitigation Measures 5.1-1(a) through 5.1-1(e).</p> <p><u>5.1-2(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:</u></p>	<p>SU</p>

**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"> • <u>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;</u> • <u>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;</u> • <u>Use wheel washers for all exiting trucks, or wash off all trucks and equipment when leaving the site.</u> • <u>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.</u> • <u>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;</u> • <u>Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);</u> • <u>Suspend excavation, grading, and/or demolition activity within wind speeds exceed 20 mph.</u> • <u>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</u> 	

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p><u>or soil binders are used.</u></p> <ul style="list-style-type: none"> • <u>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.</u> <p><u>5.1-2(b) 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.</u></p> <p><u>In addition, the project contractor shall 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.</u></p>	
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

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.1-4 Impacts related to an increase in health risks from naturally occurring asbestos emissions.	LS	<i>None required.</i>	N/A
5.1-5 Impacts related to an increase in ROG and NO _x emissions during project operation.	S	<p>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></p> <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-</i> 	SU

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>colored/high-albedo materials for at least 30 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	<p>None feasible.</p> <p><u>5.1-7 All prospective residents of residences located within the project site shall be provided statements disclosing that operations at the Florin Perkins Landfill, L and D Landfill, and transfer station have the potential to emit objectionable odors, and produce noise, vibration, dust, and litter.</u></p>	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

**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, as determined based on consultation with the Central Valley Regional Water Control Board.</i>	LS
5.2-2 Impacts related to the loss of federally listed vernal pool crustacean habitat.	<u>PSLS</u>	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	<u>LSN/A</u>

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<i>Sacramento Field Office, California.</i> <i>None required.</i>	
5.2-3 Impacts related to the loss of Swainson's hawk foraging habitat.	PS	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 <u>Wildlife Game</u> , and shall be acquired prior to development of the project site.	LS
5.2-4 Impacts related to the disturbance or removal of an active Swainson's hawk nest.	PS	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: <ul style="list-style-type: none"> • 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. <p>Or</p> <ul style="list-style-type: none"> • 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. 	LS

**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>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.</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>
<p>5.2-7 Impacts related to the loss of</p>	<p>LS</p>	<p><i>None required.</i></p>	<p>N/A</p>

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
marginal habitat for the northwestern pond turtle.			
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. <u>A qualified arborist shall perform an assessment of the health of protected trees to determine which trees require mitigation.</u> 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-136140</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

**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 affected shall be consulted. If historic archeological sites</i></p>	LS

**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>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>	
<p>5.3-2 Disturbance or destruction of previously unknown archaeological resources in combination with other development in the Sacramento area.</p>	<p>PS</p>	<p>5.3-2 Implement Mitigation Measures 5.3-1(a), (b), and (c).</p>	<p>LS</p>
<p>5.4 Geology, Soils, and Mineral Resources</p>			
<p>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.</p>	<p>PS</p>	<p>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</p>	<p>LS</p>

**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>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 unstable or contain loose or deleterious materials, the applicant shall perform required mitigation as identified by the geotechnical consultants and approved by the</i></p>	

**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>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 support due to potential liquefaction or lateral spreading.	LS	None required.	N/A
5.4-5 Damage to foundations, pavements, and other structures	LS	None required.	N/A

Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
from expansive soils.			
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 of people to hazards and hazardous materials during operation of the project.	LS	<i>None required.</i>	N/A
5.5-3 Long-term hazards-related impacts from the proposed project in	LS	<i>None required.</i>	N/A

Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
combination with existing and future developments in the Sacramento area.			
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). <u>Potential means for removing the project site from a SFHA may include, but are not limited to, the following:</u></i> <ul style="list-style-type: none"> • <u>Hydrology analysis that demonstrates that flows from Morrison Creek would not flood the project site (e.g., validation that the volume of water</u> 	LS

**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>expected within Morrison Creek during an 100-year storm event would not be sufficient to reach the project site);</i></p> <ul style="list-style-type: none"> • <i>Eliminate or control connections between mined areas and Morrison Creek (i.e., closure of tunnels);</i> • <i>Control flows of Morrison Creek upstream during storm events in order to eliminate over-topping and potential bank failure;</i> • <i>Construction of levees and/or other engineering methods deemed appropriate to meet flood protection standards; and/or</i> • <i>Certify the newly constructed channel sections along the Morrison Creek levee.</i> 	
5.6-5 Impacts related to off-site improvements associated with removal of proposed project site from a FEMA SFHA.	S	None feasible.	SU
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.	LS	None required.	N/A
5.7 Noise and Vibration			
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	PS	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.	LS

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
noise levels of 45 dBA L _{dn} or greater caused by traffic noise level increases due to the project.		<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 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>	
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	PS	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</i>	LS

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
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.		<i>mitigation measures shall be implemented in the design of the commercial and urban farm areas, if necessary, to ensure that the City's applicable exterior and interior (45 dBA L_{dn}) noise level standards for residential uses are not exceeded.</i>	
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.	<u>PS</u>	<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>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> 	<u>SULS</u>

**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"> • 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. <p>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.</p> <p>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.</p> <p>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, <u>either</u> with the conveyor system in its current configuration, <u>or</u> following relocation of the conveyor (Mitigation Measure 5.7-3[d]), a solid noise</p>	

**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>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>	
<p>5.7-4 Impacts related to project construction noise levels not being in compliance with the City of Sacramento Noise Ordinance.</p>	<p>PS</p>	<p>5.7-4 <i>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:</i></p> <ul style="list-style-type: none"> • <i>1,400 feet of the existing residences located on Newton Drive;</i> • <i>1,400 feet of unshielded locations near the soil borrow areas; and</i> • <i>1,400 feet of the residence on the south side of Jackson Highway near the Mayhew Acquisition soil storage areas.</i> 	<p>LS</p>
<p>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.</p>	<p>LS</p>	<p><i>None required.</i></p>	<p>N/A</p>

Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
5.7-6 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 beyond what was anticipated in the General Plan.	PS	5.8-1 <i>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.</i>	LS
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	LS	<i>None required.</i>	N/A

Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
services.			
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
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 <u>high capacity intersection</u>.</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

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
	S	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 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>	LS
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</i>	LS

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<i>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.</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</i>	LS

**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>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:</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 <u>safe</u> 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.</i></p>	

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<i>Implementation of the mitigation measure would reduce this impact to a less than significant level.</i>	
Cumulative Plus Project			
5.10-20 Intersections	S	<p>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.</p> <p>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.</p>	SU
	S	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.	SU

**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 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.</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

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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.</p>	
	S	<p>5.10-20(de) 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(ef) 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
	S	<p>5.10-20(fg) Watt Avenue and US 50 Westbound Ramps –</p>	SU

**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>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.</i></p> <p>5.10-20(gh) 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.</p>	LS
5.10-21 Roadway Segments	S	<p>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.</p>	SU
	S	<p>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</p>	SU

**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>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 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. At the time of building permits, the applicant shall pay fair share contribution toward the development of the high occupancy vehicles (HOV) lanes on US-50 from Watt Ave to Howe Ave. However, it cannot be guaranteed that the HOV lanes project on US-50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain significant and unavoidable.</p>	SU
5.10-23 Freeway Ramp Junctions	S	<p>5.10-23 No feasible mitigation measure has been identified. The impacts of the project on freeway ramp junctions would remain significant and unavoidable. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US-50 would be constructed prior to the build out of</p>	SU

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<i>the project, therefore, for purposes of CEQA, this impact would remain significant and unavoidable.</i>	
5.10-24 Freeway Weaving Segments	LS	None required.	N/A
5.10-25 Freeway Ramp Queuing	S	5.10-25 No feasible mitigation measure has been identified. The impacts of the project on freeway ramp queuing <i>Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US-50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain significant and unavoidable.</i>	SU
5.10-26 Pedestrian and Bicycle Circulation	LS	None required.	N/A
5.10-27 Transit System	LS	None required.	N/A
Cumulative Plus No School Alternative			
5.10-28 Intersections	S	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> <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</i>	SU

**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>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> <p>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.</p>	LS
	S	<p>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.</p>	LS
	S	<p>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</p>	LS

**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>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> <p>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.</p>	SU
	S	<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</p>	SU

**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>Policies. The impacts of the alternative on this segment remain significant and unavoidable.</i></p> <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 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.</p>	SU
5.10-30 Freeway Mainline	S	<p>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. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US 50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain significant and unavoidable.</p>	SU
5.10-31 Freeway Ramp Junctions	S	<p>5.10-31 No feasible mitigation measure has been identified. The impacts of the alternative on freeway ramp</p>	SU

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		junctions would remain significant and unavoidable. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US 50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain significant and unavoidable.	
5.10-32 Freeway Weaving Segments	LS	None required.	N/A
5.10-33 Freeway Ramp Queuing	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. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US 50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain significant and unavoidable.	SU
5.10-34 Pedestrian and Bicycle Circulation	LS	None required.	N/A
5.10-35 Transit System	LS	None required.	N/A
5.11 Urban Design and Visual Resources			
5.11-1 Impacts related to the overexcavation and recompaction of on-site soils.	LS	None required.	N/A
5.11-2 Impacts related to degradation of the existing visual character or quality of the project site and surroundings.	LS	None required.	N/A
5.11-3 Impacts related to scenic vistas and visual resources.	LS	None required.	N/A
5.11-4 Impacts related to light and glare.	LS	None required.	N/A
5.11-5 Long-term impacts to the visual character of the region from the	LS	None required.	N/A

Table 2-1 Summary of Impacts and Mitigation Measures			
Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
proposed project in combination with existing and future developments in the Sacramento area.			
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 gas infrastructure.	LS	<i>None required.</i>	N/A
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	LS	<i>None required.</i>	N/A

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
demand for fire protection services.			
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 policies and standards.	LS	<i>None required.</i>	N/A
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.	LS	<i>None required.</i>	N/A
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.	LS	<i>None required.</i>	N/A
6-14 Impacts related to the cumulative loss of agricultural lands and open space areas from development of	LS	<i>None required.</i>	N/A

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

Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
the proposed project in conjunction with other approved and future projects within the City of Sacramento.			

3 PROJECT DESCRIPTION

For clarification purposes, the second sentence in the first paragraph under Section 3.2, Project Setting and Surrounding Land Uses, on page 3-1 of the Draft EIR is hereby revised as follows:

Mining on the project site was completed in the late 19960s 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 above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the second paragraph under Section 3.2, Project Setting and Surrounding Land Uses, on page 3-1 of the Draft EIR is hereby revised as follows:

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)), which is now operating as a materials recovery/large volume transfer station. It should be noted that the Florin Perkins Material Recovery Facility (MRF) / Large Volume Transfer Station (LVTS) currently exists at the former Florin Perkins Landfill site. 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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the second paragraph under Section 3.3, Project Background, on page 3-4 of the Draft EIR is hereby revised as follows:

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.~~

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, Table 3-1 on page 3-7 in Chapter 3, Project Description, of the Draft EIR is hereby revised as follows:

Table 3-1 Land Use Summary						
Symbol	Zoning Designation	Units	Estimated Building Square Footage	Gross Acres	Net Acres¹	Net Density
<u>LDR</u> <u>R-1A</u> <u>SPD</u> (PUD)	<u>Single-Family Low Density Residential</u> (includes elementary school)	482	-	<u>86.0133.5</u>	<u>59.1</u>	<u>8.2</u>
<u>HDR</u> <u>RMX-SPD</u> (PUD)	<u>Multi-Family High Density Residential/Mixed Use</u>	<u>378783</u>	<u>59,000</u>	<u>19.343.4</u>	<u>15.1</u>	<u>25.0</u>
<u>RMU</u>	<u>Residential Mixed Use</u>	<u>405</u>	<u>59,000</u>	<u>17.0</u>	<u>13.5</u>	<u>30.0</u>
<u>C</u> <u>SC-SPD</u> (PUD)	<u>Commercial Shopping Center</u>	50	130,000	<u>12.413.4</u>	<u>10.8</u>	=
<u>UF</u> <u>A-SPD</u> (PUD)	Urban Farm	50	33,000	<u>26.728.2</u>	<u>23.8</u>	=
<u>ES</u>	<u>Elementary School</u>	=	=	<u>9.8</u>	<u>8.8</u>	=
<u>P</u> <u>A-OS</u> <u>SPD</u> (PUD)	Parks/Open Space	-	-	<u>16.614.4</u>	<u>14.5</u>	=
<u>OS</u>	<u>Open Space</u>	=	=	<u>28.8</u>	<u>28.5</u>	=
	<u>Major Roads</u>	=	=	<u>15.6</u>	=	=
TOTAL	=	1,365	222,000	232.2	=	=

¹ Net Acres excludes public streets, alleys, slopes, and landscape easements.

Source: Stonebridge Properties LLC, New Brighton PUD Guidelines, April 2011.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first paragraph under Land Use Areas on page 3-8 in Chapter 3, Project Description, of the Draft EIR is hereby revised as follows:

The proposed project includes a Tentative Map that would establish parcels for residential, commercial, school, park, open space, and urban farm uses. The project would include 133.5-59.1 net acres of land designated Single-Family Low Density Residential located in the northwest, center, and southeast portions of the project site, as well as (including 8.8 net acres to facilitate the development of an elementary school, with an underlying designation of Single-Family Residential) and In addition, 43.4 15.1 net acres of land designated Multi-Family High Density Residential and 13.5 net acres of land designated Residential Mixed Use would be located in the central and southern portions of the project site. The project would include the following additional uses: 43.4 10.8 net acres of land designated Shopping Center/Commercial located in the northeast

portion of the site; ~~44.4~~ 14.5 net acres of land designated Parks/Open Space in three separate areas throughout the project site; 28.5 net acres of land designated Open Space/Medians located throughout project site; and ~~28.2~~ 23.8 net acres of land designated Urban Farm in the southwest portion of the project site.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the last paragraph on page 3-8 in Chapter 3, Project Description, of the Draft EIR is hereby revised as follows:

Single-Family Low Density Residential

The project would include a total of up to 482 single-family units on ~~59.1~~ 133.5 net acres of land designated ~~Single-Family Low Density Residential~~ located in the northwest, center, and southeast portions of the site. The land designated ~~Single-Family Low Density Residential~~ includes a variety of residential housing types, including single-family attached and detached units, as well as secondary units.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, page 3-12 in Chapter 3, Project Description, of the Draft EIR is hereby revised as follows:

High Density Multi-Family Residential/Mixed-Use

The project would include up to ~~378~~ 405 units on ~~15.1~~ 43.4 net acres of land designated ~~Multi-Family High Density Residential/Mixed-Use~~, which would be limited to ~~with a targeted density of 25~~ 30 du/ac, in the ~~center and south and~~ southeast portions of the project site. The ~~Multi-Family High Density Residential/Mixed-Use~~ component of the project would include an affordable component ~~and would be limited to a density of 25 du/ac.~~

Residential Mixed Use

The project would include up to 405 units on 13.5 net acres of land designated Residential Mixed Use with a targeted density of 30 du/ac, in the southern center and southeast portions of the project site.

Elementary School ~~Elementary School~~

The project would include 8.8 net 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 ~~43.4~~ 10.8 net acres of land designated ~~Commercial 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 ~~Commercial Shopping Center~~ and

the Estimated Building Square Footage under this designation would be 130,000 square feet.

Parks and Open Space/Medians Facilities

This project provides a total of ~~44.4~~ 14.5 net acres of park and recreational areas that are eligible for Quimby Act Credit, as well as an additional 52.3 net acres of open space and recreational areas, including the 23.8 ~~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 ~~23.8~~ 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, and cultural, religious, or social uses.~~ 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

The last paragraph on page 3-13 in Chapter 3, Project Description, of the Draft EIR is hereby revised as follows:

Wastewater collection and treatment for the proposed project would be provided by the Sacramento Area Sewer District (SASD) and the Sacramento Regional County Sanitation District (SRCSD), respectively. Sewer infrastructure, within the project boundary and South Watt Avenue, would include a 15-inch sewer main that would connect to a new Sacramento Area Sewer District (SASD) sewer lift station on the east side of South Watt Avenue, ~~and a~~ A 10-inch force main that would convey the flows run from the proposed lift station to the existing central-Northeast 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).

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

For clarification purposes, the list under Required Public Approvals on pages 3-17 and 3-19 in Chapter 3, Project Description, of the Draft EIR is hereby revised as follows:

- 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- R-1A~~ SPD-[PUD]), Multi-Family Residential (~~MFR- R-3~~ SPD-[PUD]), Shopping Center (~~SC- SPD-~~ [PUD]), Agricultural (A SPD [PUD]), and ~~Parks/ Agricultural Open Space (OSR-~~ AOS SPD- [PUD]);
- Large Lot Tentative Subdivision Map;
- Tentative Subdivision Map and associated Subdivision Modifications (as detailed on the Tentative Map);
- PUD Establishment;
- Special Planning District (SPD) 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.

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;
- FEMA issuance of a Letter of Map Revision (LOMR), Conditional Letter of Map Revision (CLOMR), or a new FIRM in the event that the Project site or a portion thereof is designated in a SFHA;

- Sacramento County approval of off-site water, wastewater, and drainage improvements;
- 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).

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the Rezone and Prezone paragraph on page 3-21 in Chapter 3, Project Description, of the Draft EIR is hereby revised as follows:

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), as well as a prezone of the 29.5 acres located outside of the City from Heavy Industrial (M-2 [SM]) and Industrial Reserve Surface Mining Combining Zone (IR [SM]). ~~The site would be zoned to Single-Family Residential (R-1A SPD [PUD]), Multi-Family Residential/Mixed-Use (RMXR-3 SPD [PUD]), Residential Mixed Use (RMX SPD [PUD]), Shopping Center (SC SPD [PUD]), Parks/Agricultural Open Space (A-OS AOS SPD [PUD]), and Agricultural (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~~ reorganization (annexation and related detachments) approval by LAFCo.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, Figure 3.12 on page 3-22 in Chapter 3, Project Description, of the Draft EIR is hereby revised as shown on the following page. The change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

The first and third paragraphs under Reorganization on page 3-23 of the Project Description Chapter of the Draft EIR are hereby revised as follows:

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. In a separate action, the PUC would consider approval of a modification of the Cal-Am Water service territory to remove the annexation portion of the project site from Cal-Am's boundaries.

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~~ reorganization (annexation and related detachments). 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...

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

4 LAND USE, POPULATION, AND HOUSING

For clarification purposes, the second sentence of the last paragraph on page 4-1 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

Mining on the project site was completed in the late 19960s 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 above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the second paragraph on page 4-2 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

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). It should be noted that the Florin Perkins Material Recovery Facility (MRF) / Large Volume Transfer Station (LVTS) currently exists at the former Florin Perkins Landfill site. 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 above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the second paragraph on page 4-4 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

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~~ is Agricultural-Urban Reserve – Aggregate Resource Area (URB RES – AGA) (16.5 acres) and Intensive Industrial (INT IND) (13.0 acres).

As such, the succeeding discussion on page 4-4 of the Draft EIR requires the following changes:

~~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.~~

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

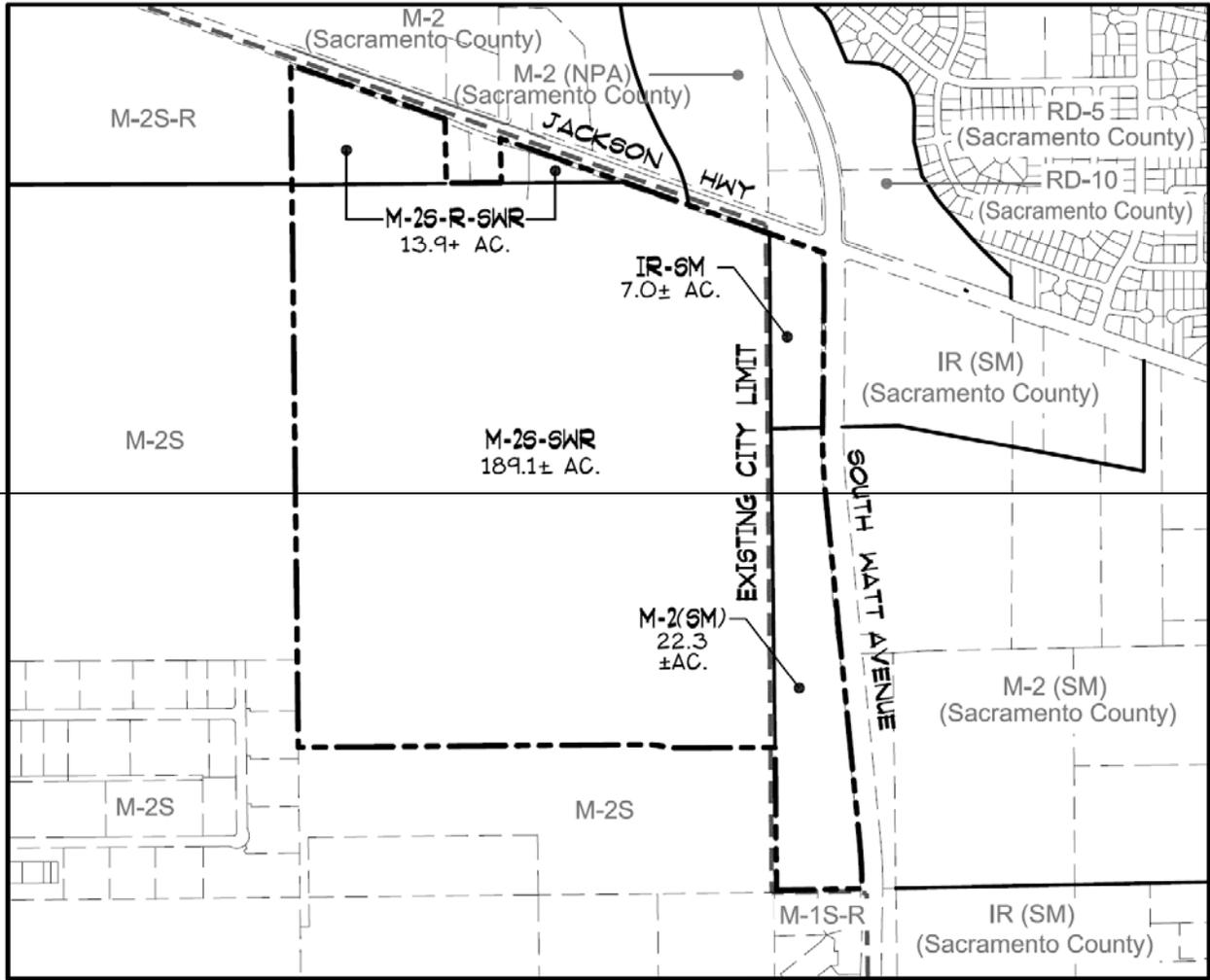
For clarification purposes, the first paragraph under Sacramento County Zoning on page 4-5 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

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]).

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

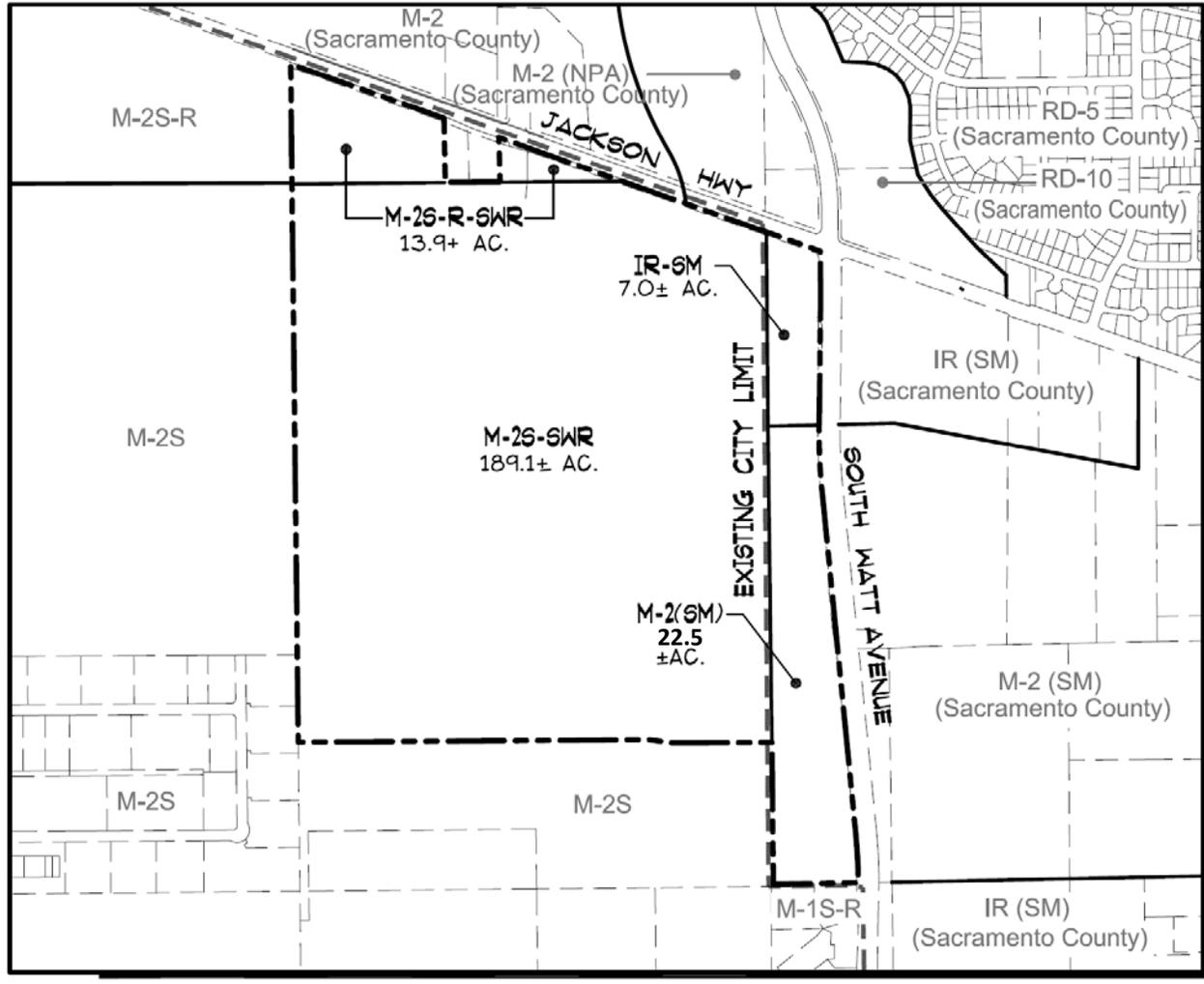
For clarification purposes, Figure 4-2 on page 4-6 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as shown on the following page. The change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

**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

**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	22.5
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

For clarification purposes, the second and third paragraphs on page 4-10 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

According to ESRI, a reputable statistical data resource that uses information garnered from the Census Bureau, the California Department of Finance, and the California Employment Development Department, in 2010, 57.2 ~~46.9~~ percent of the housing stock was owner-occupied in the City of Sacramento, ~~39.0~~ 45.7 percent of the stock was renter-occupied, and ~~3.8~~ 7.4 percent was vacant. ~~As such, The California Department of Finance identified a 5.72 percent vacancy rate in Sacramento, as of 2010, was 7.4 percent.~~ 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the last three paragraphs on page 4-20, as well as the first paragraph on page 4-25, in Chapter 4, Land Use, Population, and Housing, of the Draft EIR are hereby revised as follows:

Proposed Land Uses and Zoning

The land use and zoning designations proposed for the project includes are presented in detail below. ~~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-R-3~~ RMX-R-3 SPD [PUD]), Residential Mixed Use (RMX SPD [PUD]), Shopping Center (SC SPD [PUD]), ~~Parks/ Agricultural~~ Open Space (A-OS AOS SPD [PUD]), and ~~Urban Farm Agricultural (A SPD [PUD])~~ (See Figure 4-6).

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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, Figure 4-6 on page 4-24 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as shown on the following page. The change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the first paragraph on page 4-25 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

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~~ reorganization (annexation and related detachments) approval by LAFCo. The Sacramento Zoning Code (Title 17) defines the proposed zoning designations as follows.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the following text has been added between the second and third paragraphs on page 4-26 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR are hereby revised as follows:

Single-Family Residential Zone (R-1A)

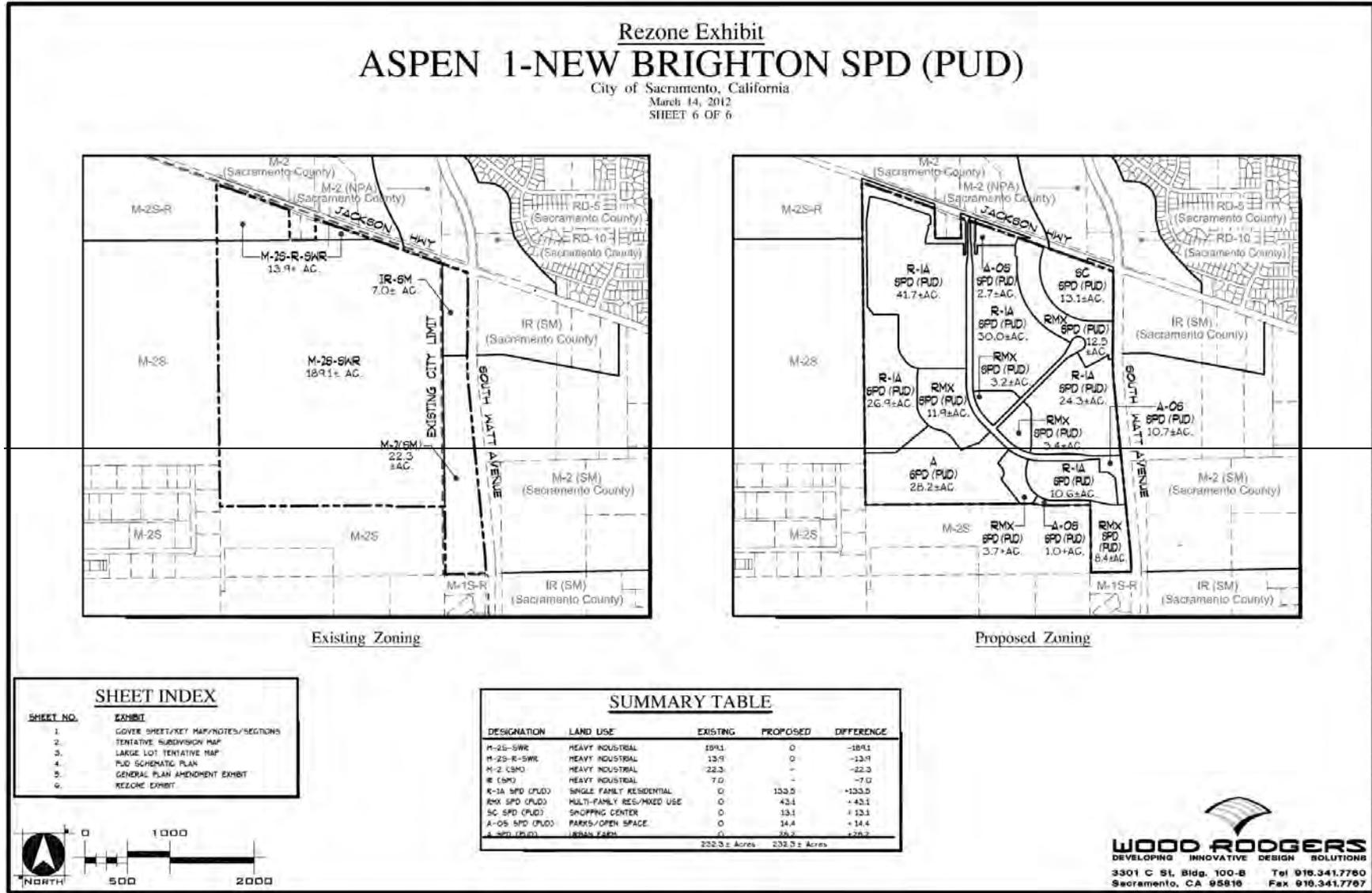
The R1-A zoning district is a low- to medium-density residential zone intended to permit the establishment of single-family, individually owned, attached or detached residences where lot sizes, height, area and/or setback requirements vary from standard single-family. This zone is intended to accommodate 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 Zone (R-3)

The R-3 zoning district is a multi-family residential zone intended for more traditional types of apartments. This zone is located outside the central city serving as a buffer along major streets and shopping centers. Minimum land area per unit is one thousand four hundred and fifty (1,450) square feet. Maximum density for the R-3 zone is thirty (30) dwelling units per acre.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

Figure 4-6
 Rezone Exhibit



For clarification purposes, the fifth paragraph on page 4-27 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

As noted above, the project includes ~~annexation~~ reorganization (annexation and related detachments) 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the last four paragraphs on page 4-26 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR are hereby revised as follows:

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/ Agricultural-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~~ livestock.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first, second, and third paragraphs on page 4-27 under Consistency with the Sacramento 2030 General Plan in Chapter 4, Land Use, Population, and Housing, of the Draft EIR are hereby revised as follows:

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 ~~32.2-23.8~~-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.

As shown in Figure 4-4, Tentative Subdivision Map, dDevelopment 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 ~~133.5-59.1 net~~ acres and divided into three neighborhoods. The multi-family residential/~~mixed-use~~ lots would include approximately 378 ~~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).~~

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first and fourth paragraphs under Consistency with the City of Sacramento Zoning Ordinance on page 4-29 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR are hereby revised as follows:

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, 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 Mixed-Income Housing Ordinance requires that ~~ten-15~~ 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 ~~137-205~~ income-restricted housing units. Therefore, the proposed project would comply with the City's Zoning Ordinance and SPD and PUD guidelines.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the second paragraph under Compatibility with Existing Adjacent Land Uses on page 4-30 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

Approval of the proposed project would result in development of ~~133.5-59.1 net~~ acres of ~~Single-Family Low Density Residential~~; ~~43.1-15.1 net~~ acres of ~~Multi-Family High Density Residential~~; 13.5 net acres of Residential /Mixed- Use; ~~13.1-10.8 net~~ acres of ~~Commercial Shopping Center~~; ~~14.4-14.5 net~~ acres of ~~Open Space/Parks~~ throughout the project site; 28.5 net acres of Open Space/Medians throughout the project site; 8.8 net acres for an elementary school with an underlying designation of ~~Single-Family Residential~~; and ~~28.2-23.8 net~~ 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the third paragraph on page 4-30 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

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~~ reorganization (annexation and related detachments) 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the last three paragraphs on page 4-30 and the first paragraph on page 4-31 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR are hereby revised as follows:

Commercial

The project includes ~~approximately 13.4~~ 10.8 net acres of ~~Suburban Center Commercial~~ uses in the northeast corner of the site. The ~~Suburban Center commercial~~ 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-High Density Residential and Residential /Mixed Use

The project includes a multi-family residential ~~and a 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-Low Density Residential

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~~ 14.5 net acres ~~for a~~ community park and a ~~23.8~~ 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first sentence under Surrounding Uses on page 4-31 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

Surrounding uses includes Jackson Highway and the Teichert Perkins~~g~~ 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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the third paragraph under Surrounding Uses on page 4-31 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR is hereby revised as follows:

The L and DP Landfill is a Limited Class III landfill. Area-wide demand for recycling facilities for construction debris, metals, wood wasters, and electronic wasters has been steadily increasing due to existing City and County policies for landfill waste stream diversion. Currently, this facility primarily 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, inert debris including construction and demolition waste, debris, roofing material, wood waste, cardboard, concrete, asphalt, carpet, and other similar materials. ~~vegetative debris. The facility also processes and sorts recyclable material for reuse.~~ 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 above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the last two paragraphs under Consistency with the Sacramento Housing Element on page 4-32 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR are hereby revised as follows:

As stated above, the project includes the development of approximately ~~437~~205 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 ~~49.6~~24.6 acres of Traditional Neighborhood Medium and ~~9.9~~4.9 acres of Suburban Center. The project would result in the development of approximately ~~426.5~~219.9 gross acres of Traditional Neighborhood Medium and 12.4 gross acres of Suburban Center uses. Buildout of the proposed project's residential land uses (i.e., 482 low density residential, 378 high density residential, and 405 residential mixed use units) ~~would be within the allowable densities of the land use designations, 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

5.1 AIR QUALITY AND CLIMATE CHANGE

The following mitigation measures beginning on page 5.1-23 of Chapter 5.1, Air Quality and Climate Change, are hereby revised as follows:

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 within 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(ba) ~~Prior to the issuance of a grading permit, t~~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 405 percent particulate reduction compared to the most recent CARB fleet average at the time of construction, within 30 days of issuance of the grading permit, but at least within 10 business days prior to use of equipment on the project. ~~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(eb) ~~Prior to the issuance of a grading permit, t~~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, within 30 days of issuance of the grading permit, but at least within 10 business days prior to use of equipment on the 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(ec) ~~Prior to the issuance of a grading permit, t~~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 within 30 days of issuance of the grading permit, but at least within 10 business days prior to use of equipment on the project. 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, and ~~the~~ most 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)~~ the following mitigation measures 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(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 within 48 hours. The phone number of the District shall also be visible to ensure compliance.

5.1-2(b) 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.

In addition, the project contractor shall 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.

The above changes reflect comments received by the SMAQMD and are for clarification purposes only, they do not alter any of the conclusions contained within the Draft EIR.

Due to the above changes, Mitigation Measure 5.1-3 on page 5.1-26 of the Draft EIR is hereby revised as follows:

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

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

The first sentence of the third paragraph on page 5.1-28 of Chapter 5.1, Air Quality and Climate Change, is hereby revised as follows:

The mitigated emissions shown in Tables 5.1-7 and 5.1-8 reflect reductions in the vehicle miles traveled included in the project traffic report, but do not include mitigation associated with the design features described in the project's AQMP. Via the design features, the proposed project would reduce ROG and NO_x emissions by 38.3 percent, which reduces Unmitigated NO_x emissions are already below the District's 65 ppd emission threshold with and without the elementary school; therefore, the design features of the project would further reduce 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**.

The above changes do not affect the adequacy of the original environmental analysis contained in the Draft EIR; rather, the changes serve to clarify the previous analysis and associated findings.

For clarification purposes, the list included in Mitigation Measure 5.1-5 on page 5.1-28 in Chapter 5.1, Air Quality and Climate Change, of the Draft EIR is hereby revised as follows:

- *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.*

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

Impact 5.1-7, Impacts related to the creation of objectionable odors, on pages 5.1-29 and 5.1-32 of Chapter 5.1, Air Quality and Climate Change, is hereby revised as follows:

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~~Five potential odor sources in the vicinity of the project site could potentially affect the project’s residents (See Figure 5.1-2).

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 ~~and~~
- On-site urban farm.

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. It should be noted that four of the 13 Perkins Plant odor complaints received by SMAQMD reflect multiple complaints received on the same day, and six of the 13 complaints were received within the span of a single week in September 2008. The source of these complaints has since been rectified by Teichert, as evidenced by the fact that Perkins Plant odor complaints have not been received by SMAQMD for the entire 2010 calendar year. 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. Furthermore, the existing permit conditions for the Florin-Perkins landfill restrict the receipt of odor-causing materials at the Materials Recovery Facility. 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, a~~ Although these land uses will provide a buffer zone, odors could still be detectable at residences. It is important to note, however, that the L and D landfill is in the closure process; therefore, future project residents will not be exposed to potential odors from L and D landfill over the long-term.

The 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 could generate odors that could be considered objectionable by future residents. Organic farming techniques and the limited usage of chemicals could create odors that could be transported to the proposed on-site residential areas via the prevailing northerly winds. Given the uncertainty related to the potential generation of objectionable odors associated with the proposed urban farm and the consideration that Ffeasible mitigation measures are not available to reduce ~~these~~ odor impacts associated with the 23rd Avenue/Warehouse Way Industrial Area and the L and D Landfill, so long as it continues to operate. ~~Consequently,~~ the proposed project would have a **significant and unavoidable** impact.

The above changes do not affect the adequacy of the original environmental analysis contained in the Draft EIR. The significant and unavoidable conclusion for odor impact identified in the Draft EIR has not changed.

For clarification purposes, the following mitigation measure is hereby added to page 5.1-32, Chapter 5.1, Air Quality and Climate Change, of the Draft EIR:

Mitigation Measure(s)

~~None feasible.~~ Implementation of the following mitigation measure, which requires written notification to potential homebuyers, would increase awareness of odors near the project site, but would not reduce the impact to a less-than-significant level. Therefore, the impact would remain significant and unavoidable.

5.1-7 All prospective residents of residences located within the project site shall be provided statements disclosing that operations at the Florin Perkins Landfill, L and D Landfill, and transfer station have the potential to emit objectionable odors, and produce noise, vibration, dust, and litter.

The above change is for clarification purposes. It should be noted that the above added mitigation to the Draft EIR would not lessen the impact related to objectionable odors to a less-than-significant level. The impact would remain *significant and unavoidable*.

For clarification purposes, the first paragraph on page 5.1-37 in Chapter 5.1, Air Quality and Climate Change, of the Draft EIR is hereby revised as follows:

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 more than 29 percent and the project, therefore, would be in compliance with the AB 32 reduction requirements.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the fourth paragraph on page 5.1-38 in Chapter 5.1, Air Quality and Climate Change, of the Draft EIR is hereby revised as follows:

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 ~~29-36.7~~ percent and a cumulative (2030) emission reduction of ~~35-43.0~~ 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

5.2 BIOLOGICAL RESOURCES

For clarification purposes, the first paragraph on page 5.2-10 in Chapter 5.2, Biological Resources, of the Draft EIR is hereby revised as follows:

As part of the ongoing mining and reclamation operation on the proposed project site, Teichert conducts regular maintenance of these on-site 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

The discussion regarding protected trees on page 5.2-15 in Chapter 5.2, Biological Resources, of the Draft EIR is hereby revised as follows:

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. These criteria are as follows:

Heritage Trees

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).

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.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

To reflect the California Fish and Games Commission's December 2014 decision to approve an emergency listing of the Tricolored Blackbird under the California Endangered Species Act, Table 5.2-4 on page 5.2-23 in Chapter 5.2, Biological Resources, of the Draft EIR is hereby revised as follows:

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 <u>Species of Special Concern</u> <u>Endangered</u> <u>(Emergency Listing)</u>	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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

The second paragraph on page 5.2-25 of the Biological Resources Chapter, under the Vernal Pool Crustaceans header, is hereby revised as follows:

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~~ have not been observed within potential habitats located within the project area. ~~In addition, the first of the two wet season surveys had~~ have been completed, ~~(during which vernal pool crustaceans were not found) and the second wet season survey was in process.~~

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Page 5.2-29 of the Biological Resources Chapter of the Draft EIR is hereby revised as follows:

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.) In addition, the USACE does not typically recognize as jurisdictional those ditches that have been excavated in uplands and do not carry a relatively permanent flow of water (U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, “Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in *Rapanos v. United States* and *Carabell v. United States*,” December 2, 2008).

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

For clarification purposes, the last sentence of the first paragraph under Migratory Bird Treaty Act on page 5.2-30 in Chapter 5.2, Biological Resources, of the Draft EIR is hereby revised as follows:

Therefore, activities that may result in the injury or mortality of native migratory birds, including eggs and nestlings, would be prohibited under the MBTA.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the sentence under California Fish and Game Code Section 3503.5 – Raptor Nests on page 5.2-31 in Chapter 5.2, Biological Resources, of the Draft EIR is hereby revised as follows:

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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

The Sacramento County General Plan Regulatory Context discussion on Page 5.2-33 of the Biological Resources Chapter of the Draft EIR is hereby revised as follows:

Sacramento County General Plan

Sacramento County General Plan Policy CO-6258 currently provides protection to aquatic ecosystems. Specifically, the policy reads: “[...] ensures no net loss of marsh and wetlands, riparian woodlands acreage, values, or functions and oak woodlands.” The General Plan also seeks to protect heritage, landmark and other native trees (collectively referred to as “protected trees”). “Landmark trees” are defined as must be “any nonoak native tree measuring 19 inches in diameter at breast height stately, prominent, and have exceptional habitat values.” A heritage tree is defined as “a native oak (Valley Oak, Interior Live Oak, Blue Oak, and Oracle Oak) that exceed 60 inches in circumference (18 to 20 inches in diameter at breast height). Policies CO-430138 and 139 encourages protection and preservation of native oak trees and other than oaks native trees (excluding cottonwoods) and landmark trees.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

The first paragraph on page 5.2-38 of the Biological Resources Chapter, under Impact 5.2-1, Impacts to wetlands and associated resources, is hereby revised:

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). In addition, the USACE does not typically recognize as jurisdictional those ditches that have been excavated in uplands and do not carry a relatively permanent flow of water (U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, “Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in *Rapanos v. United States* and *Carabell v. United States*,” December 2, 2008). 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 ponds (all but the industrial pond on the Mayhew property) and all four off-site drainage ditches 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 above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Mitigation Measure 5.2-1, on page 5.2-39 of the Biological Resources Chapter of the Draft EIR, is hereby revised to ensure coordination with the Central Valley Regional Water Control Board:

- 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, as determined based on consultation with the Central Valley Regional Water Quality Board.*

The above change provides clarification and does not alter any of the conclusions contained within the Draft EIR.

Impact 5.2-2, starting on page 5.2-39 of the Biological Resources Chapter of the Draft EIR, is hereby revised to reflect the results of a second wet season survey, which was not available at the time of preparation of the Draft EIR; the results of which indicate that vernal pool crustaceans are not present on the Mayhew property:

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~~have been completed (2009/2010) and ~~the second (2010/2011) wet season survey was in process. To date, v~~ernal pool fairy shrimp and/or vernal pool tadpole shrimp have not been observed within the potential habitats located within the project area.

In addition, 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, Because two wet season surveys have been conducted on the Mayhew property in accordance with USFWS protocol and vernal pool crustaceans have not been detected, the project's impact would be **potentially less-than-significant.**

Mitigation Measure(s)

~~Implementation of the following mitigation measure would reduce the above impact to a less than significant level. None required.~~

- ~~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.”~~

The above changes are based upon the results of the second wet season survey for listed vernal pool branchiopods, which was performed by Gibson & Skordal. Based upon the results, the project would not have adverse impacts to listed vernal pool branchiopods. Although the above changes result in a modification the conclusions identified for Impact 5.2-2 in the Draft EIR, the modification would decrease the severity of the impact. According to CEQA Guidelines §15088.5(a), going from significant to less than significant does not warrant recirculation because it is neither a new significant environmental impact not addressed in the DEIR nor a substantial increase in the severity of a previously identified environmental effect.

Mitigation Measure 5.2-3 on page 5.2-42 of the Draft EIR is hereby revised as follows:

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 WildlifeGame, and shall be acquired prior to development of the project site.*

The above change is to reflect the name change of the State department and is for clarification purposes only. The revision does not alter any of the conclusions contained within the Draft EIR.

The fifth paragraph on page 5.2-42 in Chapter 5.2, Biological Resources, of the Draft EIR is hereby revised as follows:

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 30¹ to ~~August~~September 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*.

The above change provides clarification and does not alter any of the conclusions contained within the Draft EIR.

Impact 5.2-11, Impacts related to the loss of heritage and/or protected trees, on page 5.2-45 of the Biological Resources Chapter is revised as follows:

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-433~~140~~, 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-432~~140~~ 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-436~~140~~ allows the applicant to mitigate off-site for such impacts, provided the off-site area meets the following criteria:

The above change provides clarification and does not alter any of the conclusions contained within the Draft EIR.

Mitigation Measure 5.2-11 on page 5.2-46 of the Draft EIR is hereby revised as follows:

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. A qualified arborist shall perform an assessment of the health of protected trees to determine which trees require mitigation. 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-436~~140~~.*

The above changes are for clarification purposes and do not affect the adequacy of the original analysis contained in the Draft EIR.

5.3 CULTURAL RESOURCES

The third paragraph on page 5.3-3 of the Cultural Resources Chapter of the Draft EIR is hereby revised as follows:

A majority of the Aspen 1-New Brighton site was annexed by the City of Sacramento in 1963. However, the project includes ~~annexation~~ reorganization (annexation and related detachments) 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 above changes are for clarification purposes and do not affect the adequacy of the original analysis contained in the Draft EIR.

Select cultural resources policies from the Sacramento County General Plan are hereby added to page 5.3-6 in Chapter 5.3, Cultural Resources, of the Draft EIR, as follows:

Sacramento County General Plan

CO-157. Monitor projects during construction to ensure crews follow proper reporting, safeguards, and procedures.

CO-158. As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction.

CO-161. As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.

CO-162. Projects located within areas known to be sensitive for paleontological resources, should be monitored to ensure proper treatment of resources and to ensure crews follow proper reporting, safeguards and procedures.

CO-163. Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.

The above changes are intended to provide a more comprehensive regulatory background. The changes do not affect the adequacy of the original environmental analysis contained in the Draft EIR.

The second paragraph of Impact 5.3-1 on page 5.3-8 of the Cultural Resources Chapter of the Draft EIR is hereby revised as follows:

SWCA Environmental Consultants, Inc. did not identify any prehistoric, archaeological, or historic-era cultural resources within the study area, which is comprised of the approximately 232-acre Aspen I site and the 136-acre off-site infrastructure improvement area. 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.

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

The first sentence of the last paragraph on page 5.3-8 of the Cultural Resources Chapter of the Draft EIR is hereby revised as follows:

Approximately 98.5 percent of the 232-acre portion of the study area is composed of previously mined land.

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

5.5 HAZARDS AND HAZARDOUS MATERIALS

For clarification purposes, the first sentence under Agricultural Chemicals and Heavy Metals on page 5.5-6 in Chapter 5.5, Hazards and Hazardous Materials, of the Draft EIR is hereby revised as follows:

The project includes overexcavation, importation of fill, and compaction of the site. With the exception ~~or~~of arsenic, concentrations of heavy metals and agricultural chemicals were less than the residential and industrial screening levels.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the last paragraph on page 5.5-8 in Chapter 5.5, Hazards and Hazardous Materials, of the Draft EIR is hereby revised as follows:

The supplemental landfill gas analysis prepared by Nichols Consulting Engineers (NCE) confirms the conclusions outlined in the following discussion. Although the NCE report concurred with the EIR's less-than-significant conclusion with respect to landfill gas impacts, NCE recommended an "ameliorative strategy" for added protection of the proposed uses at the southeast corner of the Aspen 1 site (see page 28 of the NCE report). Consistent with this recommendation, the applicant has voluntarily agreed to incorporate one or more of the following into the project: 1) the installation of geomembrane systems for planned structures on the school and multi-family sites and/or 2) the provision of a backup power generator (portable power generator) for the L and D Landfill. 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, as indicated in Figure 3-4, Large Lot Tentative Map, of Chapter 3, Project Description, of this Draft EIR, 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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

5.6 HYDROLOGY, WATER QUALITY, AND DRAINAGE

For clarification purposes, the second sentence of the first paragraph under Proposed Project Site on page 5.6-4 in Chapter 5.6, Hydrology, Water Quality, and Drainage, of the Draft EIR is hereby revised as follows:

Mining on the project site was completed in the late 19960s 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 above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

Mitigation Measure 5.6-4 on page 5.6-35 of the Hydrology, Water Quality, and Drainage Chapter of the Draft EIR is hereby revised for clarification purposes as follows:

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). 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.

The above changes do not affect the adequacy of the original environmental analysis contained in the Draft EIR. Rather, the changes identify possible ways to achieve the requirements already set forth in Mitigation Measure 5.6-4 of the Draft EIR.

5.7 NOISE AND VIBRATION

For clarification purposes, the first sentence of the third paragraph under City of Sacramento Noise Ordinance on page 5.7-21 in Chapter 5.7, Noise and Vibration, of the Draft EIR is hereby revised as follows:

Section 8.68.080.ED (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 above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

Mitigation Measure 5.7-2 on page 5.7-26 of the Noise and Vibration Chapter of the Draft EIR is hereby revised as follows:

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, if necessary, to ensure that the City's applicable exterior and interior (45 dBA Ldn) noise level standards for residential uses are not exceeded.*

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

The conclusion to Impact 5.7-3 on page 5.7-29 of the Noise and Vibration Chapter of the Draft EIR is hereby revised as follows:

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 **potentially 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.

The above changes are based on the fact that the applicant is a subsidiary of Teichert and does in fact have the ability to implement the off-site control measures. The changes would not be considered new information of substantial importance or a new or more severe impact, and would not result in any new mitigation measures or new or revised alternatives that would require major revisions to the Draft EIR.

For clarification purposes, the second to last paragraph on page 5.7-30 in Chapter 5.7, Noise and Vibration, of the Draft EIR is hereby revised as follows:

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"~~ Sacramento City Code Section 8.68.080.D). 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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

5.8 PARKS AND RECREATION

For clarification purposes, the first paragraph under Proposed Project Recreational Facilities on page 5.8-4 in Chapter 5.8, Parks and Recreation, of the Draft EIR is hereby revised as follows:

The project would include a total of ~~66.8-43 net~~ acres of land designated as either Park or Open Space/Median in several separate areas throughout the project site, and 23.8 net acres of Urban Farm. 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 above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, Table 5.8-1 on page 5.8-5 in Chapter 5.8, Parks and Recreation, of the Draft EIR is hereby revised as follows:

Table 5.8-1 Quimby (Park Requirement) Calculations					
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 -LDR	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.					

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

Due to SPD modifications since the release of the Draft EIR, the Urban Farm description on page 5.8-5 in Chapter 5.8, Parks and Recreation, is hereby revised as follows:

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, and cultural, religious, or social uses.~~

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the paragraph under Perimeter Open Space Areas, on page 5.8-8 in Chapter 5.8, Parks and Recreation, of the Draft EIR is hereby revised as follows:

~~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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the paragraph under Additional Open Space Areas, on page 5.8-8 in Chapter 5.8, Parks and Recreation, of the Draft EIR is hereby revised as follows:

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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

5.9 PUBLIC SERVICES

For clarification purposes, the third paragraphs on page 5.9-18 in Chapter 5.9, Public Services, of the Draft EIR is hereby revised as follows:

As stated above, the SPD currently provides police service to a majority of the proposed project site. Upon ~~annexation~~ reorganization (annexation and related detachments), 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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

The second and third paragraphs on page 5.9-19 in Chapter 5.9, Public Services, of the Draft EIR are hereby revised as follows:

...Upon ~~annexation~~ reorganization (annexation and related detachments), 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...

...Upon ~~annexation~~ reorganization (annexation and related detachments) of the western portion of the site, a Tax Exchange Agreement would generate funds for SFD, allowing the provision of adequate services...

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the second paragraph on page 5.9-20 in Chapter 5.9, Public Services, of the Draft EIR is hereby revised as follows:

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 ~~345-405~~ 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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

5.10 TRANSPORTATION AND CIRCULATION

The first paragraph under the Project Description section on page 5.10-1 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

In addition, the ~~project would include realignment~~ future extension of 14th Avenue (to the west) ~~in~~ would cross the northwestern portion of the site.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

For clarification purposes, the first paragraph on page 5.10-4 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

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 conventional 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first paragraph on page 5.10-5 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

The last paragraph on page 5.10-5 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

Sacramento County ~~is in the process of updating its~~ adopted an updated Bicycle Master Plan. ~~Adoption of the plan is anticipated in early April 2011.~~¹ Figure 5.10-4 illustrates the ~~draft~~ master plan facilities near the project site.

In addition, the associated endnote is hereby revised as follows:

¹ ~~<http://www.msa2.saccounty.net/transportation/Pages/BikewayMasterPlan.aspx>~~
~~<http://www.sacdot.com/Pages/BikewayMasterPlan.aspx>~~, Accessed ~~30 November 2010~~ 1 October 2012.

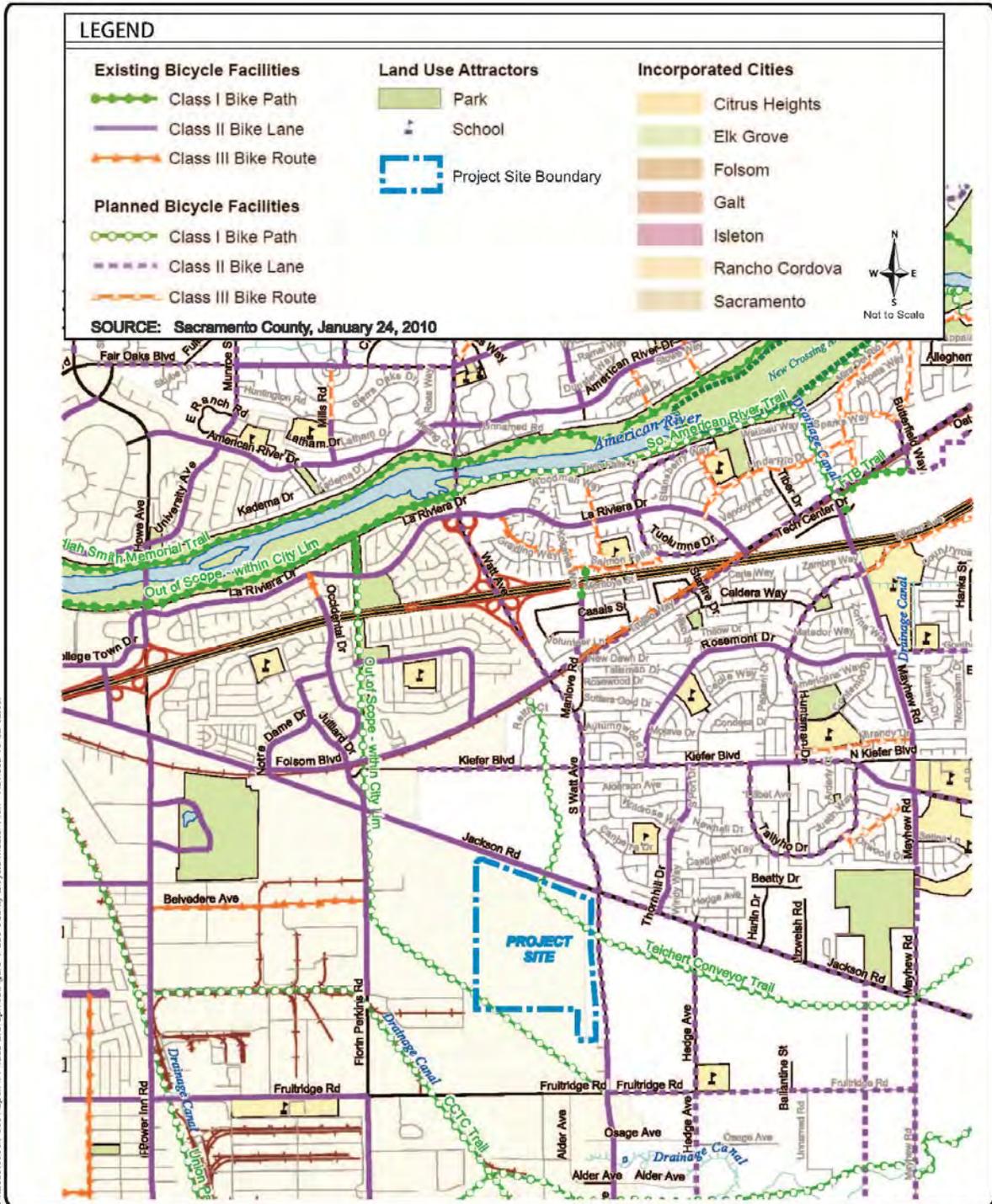
The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

Figure 5.10-4, on page 5.10-7 of the Draft EIR has been updated to reflect the Sacramento County Bikeway Master Plan, with Amendments through January 24, 2012, and is hereby replaced by the figure on the following page. The change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

For consistent formatting purposes, the double underline separating the title block and the data rows in Table 5.10-9 on page 5.10-26 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised to extend across the table, as shown on the corresponding subsequent page. In addition, Intersection number 10 has been revised as shown above per the revised analysis of the intersection to reflect the current intersection geometry and traffic signal phasing. The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

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 25.6	C	22.5 20.2
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.						

Figure 5.10-4
Sacramento County Bicycle Master Plan – Existing and Planned Bicycle Facilities



P:\2009\03064-002 Aspen 1 Phase 2\Graphics\Figure 4 - Sac County Bicycle Master Plan - Revised 10-02-12.cdr

DKS Associates
 TRANSPORTATION SOLUTIONS

FIGURE 5.10-4
SACRAMENTO COUNTY BICYCLE MASTER PLAN
EXISTING AND PLANNED BICYCLE FACILITIES

ASPEN 1

The text on page 5.10-30 under Method of Analysis section of the Draft EIR is revised as follows:

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 following:

- land use and transportation networks associated with the City's 2030 General Plan within City boundaries, as detailed in the "Sacramento 2030 General Plan Master Environmental Impact Report, Certified March 3, 2009";
- the land use and transportation networks associated with the County's proposed 2030 General Plan Update within the unincorporated County, as detailed in the "Final Environmental Impact Report, Sacramento County General Plan Update, April 2010"; and
- year 2030 land use estimates and networks elsewhere, based upon projections for SACOG's 2035 Metropolitan Transportation Plan, prorated to 2030.

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.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

For clarification purposes, the second paragraph of Mitigation Measure 5.10-1(a) on page 5.10-43 of the Draft EIR is hereby revised as follows:

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-high capacity intersection.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, Table 5.10-19 starting on page 5.10-44 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised to merge cells in the "LOS Criteria" and "Traffic Control" columns where appropriate, as shown on the following pages. In addition, Intersection number 10 has been revised as shown above per the revised analysis of the intersection to reflect the current intersection geometry and traffic signal phasing. The changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

**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
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 <u>25.6</u>	C	27.3 <u>25.4</u>	C	26.9 <u>25.2</u>
			P.M.	C	22.5 <u>20.2</u>	C	26.5 <u>23.0</u>	C	25.3 <u>22.0</u>

**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
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
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

**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
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
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
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

**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
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
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

**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
Note: VC = Volume-to-Capacity Ratio for Critical Lane Methodology 1. Level of Service 2. Seconds of Delay Source: DKS Associates, 2011.									

For clarification purposes, the first paragraph on page 5.10-51 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

Table 5.10-21 presents the ~~intersection~~ roadway 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:

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the last sentence of the fourth paragraph on page 5.10-51 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

The impacts of the project would be **less than significant**, and the project would not create impacts outside of those anticipated within the City of Sacramento General Plan MEIR.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the last sentence of the last paragraph on page 5.10-51 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

The impacts of the project would be **less than significant**, and the project would not create impacts outside of those anticipated within the City of Sacramento General Plan MEIR.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the last sentence of the first paragraph on page 5.10-57 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

The impacts of the project would be **less than significant**, and the project would not create impacts outside of those anticipated within the City of Sacramento General Plan MEIR.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the last sentence of the second paragraph on page 5.10-56 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

The impacts of the project would be **less than significant**, and the project would not create impacts outside of those anticipated within the City of Sacramento General Plan MEIR.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the last sentence of the third paragraph on page 5.10-56 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

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 City of Sacramento General Plan MEIR.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

Since the time the Draft EIR was prepared, the Sacramento Regional Transit District has adopted the Short Range Transit Plan,¹ which shows planned bus service to South Watt Avenue and Jackson Road. Accordingly, for clarification purposes, impact statement 5.10-8 and associated discussion on page 5.10-56 of the Draft EIR is hereby revised as follows:

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. However, RT has recently prepared and adopted the is currently working in coordination with Sacramento County to develop a longShort-r Range Transit pPlan (SRTP) in December 2012. The SRTP represents RT's plan for transit service over the next ten years and is guided by the RT's Transit Master Plan, the Transit Action Plan, which includes the vision, goals, and strategies for accommodating the long-range transit needs of Sacramento's traveling public. Included in the SRTP are plans for the creation of a Hi-Bus network, which is intended to provide a high quality, high capacity, and high frequency bus service on major arterials, including to provide BRT along S. Watt Avenue and Jackson Road. As such, public transit services are anticipated to be available to the project area within the next ten years. However, because transit services are not currently available, -Therefore, the impact of the project on the transit system is **potentially significant**.

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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the last sentence of the paragraph under Impact 5.10-9, Parking, on page 5.10-59 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

¹ Sacramento Regional Transit District. *Short Range Transit Plan FY 2012- FY 2022*. December 2012.

The impact would be ***less than significant***, and the project would not create impacts outside of those anticipated within the City of Sacramento General Plan MEIR.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the first sentence of the paragraph under Impact 5.10-11, Roadway Segments, on page 5.10-60 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

Table 5.10-21 presents the ~~intersection~~ roadway operating conditions associated with the Existing Plus No School Alternative scenario.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the third bullet on page 5.10-63 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as follows:

- *Provision of driveway access plan so that ~~save~~safe 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).*

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

The text on page 5.10-63 of the Draft EIR is hereby revised as follows:

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 following:

- land use and transportation networks associated with the City's 2030 General Plan within City boundaries, as detailed in the "Sacramento 2030 General Plan Master Environmental Impact Report, Certified March 3, 2009";
- the land use and transportation networks associated with the County's ~~proposed~~ 2030 General Plan Update within the unincorporated County, as detailed in the "Final Environmental Impact Report, Sacramento County General Plan Update, April 2010"; and
- year 2030 land use estimates and networks elsewhere, based upon projections for SACOG's 2035 Metropolitan Transportation Plan, prorated to 2030.

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.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

The second paragraph on page 5.10-64 of the Draft EIR is hereby revised as follows:

While the Sacramento County 2030 General Plan Update includes ~~urban interchange~~ high capacity intersections at the South Watt Avenue intersections 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, standard at-grade intersections were assumed at these locations.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

For clarification purposes, Table 5.10-27 starting on page 5.10-77 in Chapter 5.10, Transportation and Circulation, of the Draft EIR is hereby revised as shown on the following pages, including merging cells in the “LOS Criteria” and “Traffic Control” columns where appropriate. In addition, Intersection number 10 has been revised as shown above per the revised analysis of the intersection to reflect the current intersection geometry and traffic signal phasing. The changes are for clarification purposes only and do not alter the conclusions of the Draft EIR. The Jackson Road/Folsom Boulevard intersection was deleted from the list of intersections with significant project impacts. The change would not affect the “overall conclusions” because the impact was previously determined to be capable of being mitigated to a less-than-significant level. According to CEQA Guidelines §15088.5(a), going from significant to less than significant (as noted for Intersection 10, Jackson Road/Folsom Boulevard) does not warrant recirculation because it is neither a new significant environmental impact not addressed in the DEIR nor a substantial increase in the severity of a previously identified environmental effect.

For consistent formatting and clarification purposes, the Volume, Density, and LOS values under the AM peak hour Cumulative Plus Project and Cumulative Plus No School Alternative for the Westbound US 50 from Howe Avenue to 65th Street roadway segment in Table 5.10-30 on page 5.10-85 in Chapter 5.10, Transportation and Circulation, of the Draft EIR are hereby formatted as bold text, as shown on the following page. The changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

The text at the top of page 5.10-90 of the Draft EIR is hereby revised as follows:

- ~~(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.~~
- (de) 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.
- (df) 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.
- (fg) 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.

- (gh) 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.

Accordingly, mitigation measures 5.10-20(d) through 5.10-20(h) on page 5.10-91 are hereby revised as follows:

~~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(de) 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(ef) 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.

5.10-20(fg) 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(gh) 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 5.10-27
 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 <u>C</u>	68.5 <u>25.2</u>	E <u>C</u>	66.9 <u>24.1</u>	E <u>C</u>	72.8 <u>24.3</u>
			P.M.	F <u>E</u>	131.8 <u>61.9</u>	F <u>E</u>	141.4 <u>67.7</u>	F <u>E</u>	133.7 <u>61.0</u>
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 5.10-30
 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.												

Because the Draft EIR determined that with implementation of mitigation measure 5.10-20(d), the impact would be reduced to a less-than-significant level, the above changes do not alter the overall conclusions contained within the Draft EIR.

Paying a fair share contribution toward the development of the high occupancy vehicles (HOV) lanes on US-50 between from Watt Avenue to Howe Avenue is considered a feasible mitigation measure but will not bring the impact to less than significant. Therefore, Mitigation Measure 5.10-22 on page 5.10-94 of the Draft EIR has been revised as follows:

- 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**. At the time of building permits, the applicant shall pay fair share contribution toward the development of the high occupancy vehicles (HOV) lanes on US-50 from Watt Ave to Howe Ave. However, it cannot be guaranteed that the HOV lanes project on US-50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.~~

Additionally Mitigation Measures 5.10-23 and 5.10-25 on pages 5.10-94 and 5.10-95, respectively, of the Draft EIR have been revised as follows:

- 5.10-23 ~~No feasible mitigation measure has been identified. The impacts of the project on freeway ramp junctions would remain **significant and unavoidable**. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US-50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.~~
- 5.10-25 ~~No feasible mitigation measure has been identified. The impacts of the project on freeway ramp queuing Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US-50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.~~

Additionally, Mitigation Measures 5.10-30, 5.10-31 and 5.10-33 on pages 5.10-98 and 5.10-99 of the Draft EIR have been revised as follows:

- 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**. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US 50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.~~

- 5.10-31 ~~No feasible mitigation measure has been identified. The impacts of the alternative on freeway ramp junctions would remain **significant and unavoidable**. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US 50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.~~
- 5.10-33 ~~No feasible mitigation measure has been identified. The impacts of the alternative on freeway ramp queuing would remain **significant and unavoidable**. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US 50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.~~

Because the Draft EIR concluded that the impacts would be significant and unavoidable and the implementation of these modifications to the mitigation measures still result in significant and unavoidable impacts, the modifications do not alter the conclusions of the Draft EIR.

5.11 URBAN DESIGN AND VISUAL RESOURCES

For clarification purposes, the second sentence of the last paragraph on page 5.11-2 in Chapter 5.11, Urban Design and Visual Resources, of the Draft EIR is hereby revised as follows:

In addition, the former nursery site is covered by asphalt, which deters growth of aquatic plants.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the first paragraph on page 5.11-3 in Chapter 5.11, Urban Design and Visual Resources, of the Draft EIR is hereby revised as follows:

The project would include ~~133.5~~ 59.1 net acres of land designated ~~Single-Family Low Density Residential~~ located in the northwest, center, and southeast portions of the project site, ~~as well as (including 8.8 net acres to facilitate the development of an elementary school, with an underlying designation of Single-Family Residential) and In addition, 43.4~~ 15.1 net acres of land designated ~~Multi-Family High Density Residential~~ and 13.5 net acres of land designated Residential Mixed Use ~~would be~~ located in the central and southern portions of the project site. The project would include the following additional uses: ~~43.4~~ 10.8 net acres of land designated ~~Shopping Center-Commercial~~ located in the northeast portion of the site; ~~44.4~~ 14.5 net acres of land designated ~~Parks/Open Space~~ in three separate areas throughout the project site; ~~28.5 net acres of land designated Open Space/Medians located throughout the project site;~~ and ~~28.2~~ 23.8 net acres of land designated Urban Farm in the southwest portion of the project site.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

The third paragraph on page 5.11-3 in Chapter 5.11, Urban Design and Visual Resources, of the Draft EIR is hereby revised as follows:

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-related operations on-site.

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

For clarification purposes, the second sentence of the third paragraph on page 5.11-8 in Chapter 5.11, Urban Design and Visual Resources, of the Draft EIR is hereby revised as follows:

Slopes around the perimeter of the site would be improved with landscaping to create a ~~42-acre~~ buffer zone between the project, Jackson Highway and South Watt Avenue.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the last paragraph on page 5.11-9 in Chapter 5.11, Urban Design and Visual Resources, of the Draft EIR is hereby revised as follows:

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 ~~42-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 City of Sacramento General Plan MEIR.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

5.12 UTILITIES, SERVICE SYSTEMS, AND ENERGY

For clarification purposes, the second sentence of the second paragraph on page 5.12-2 in Chapter 5.12, Utilities, Service Systems, and Energy, of the Draft EIR is hereby revised as follows:

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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

The Wastewater Collection and Treatment, Sacramento Area Sewer District section on page 5.12-10 and 5.12-11, in Chapter 5.12, Utilities, Service Systems, and Energy, of the Draft EIR, is hereby revised as follows:

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, Rancho Cordova, 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~~ 1.1 Million.

The ~~smaller local collector and trunk~~ pipelines that SASD operates connect to the larger regional interceptor ~~collection~~ conveyance facilities maintained by Sacramento Regional County Sanitation District (SRCSD).

~~The SASD 2010 System Capacity's master pPlan and the approved sewer study for the project,~~ proposes construction of a new sewer trunk line (Gravel West Trunk Shed Project) from north of Jackson Highway along South Watt Avenue and a new pump station with a force main connection to Northeast interceptor at to Fruitridge Road. The purpose of the trunk line and the lift station is to provide service to the proposed project and create capacity for future development in the project vicinity, specifically especially north and east of the project site.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

The following is hereby added to the third paragraph on page 5.12-11, Chapter 5.12, Utilities, Service Systems and Energy, of the Draft EIR:

SRCSD 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. In addition, SRCSD is in the process of initializing an Interceptor Sequencing Study that will aid SRCSD in planning and implementing regional conveyance projects and assists SASD in coordinating collection system facilities.

The above change is for clarification only and does not alter any of the conclusions contained within the Draft EIR.

The Sacramento Regional Wastewater Treatment Plant section on page 5.12-11 of the Draft EIR is hereby revised as follows:

Sacramento Regional Wastewater Treatment Plant

The Sacramento Regional Wastewater Treatment Plant (SRWWTP), located in Elk Grove, serves the entire Sacramento metropolitan area including the unincorporated county areas adjacent to the Cities of Sacramento, Citrus Heights, Elk Grove, Rancho Cordova, and Folsom. The SRWWTP provides secondary treatment using an activated sludge process. Incoming wastewater flows through mechanical bar screens through a primary sedimentation process, which allows most of the heavy organic solids to settle to the bottom of the tanks. The solids are later delivered to the digesters. Next, oxygen is added to the wastewater to grow naturally occurring microscopic organisms, which consume the organic particles in the wastewater. The organisms eventually settle on the bottom of the secondary clarifiers. Clean water pours off the top of these clarifiers and is

chlorinated, removing any pathogens or other harmful organisms that may still exist. Chlorine disinfection occurs while the wastewater travels through a two mile outfall pipeline to the Sacramento River, near the town of Freeport, California. Before entering the river, sulfur dioxide is added to neutralize the chlorine. The design of the SRWWTP and collection system was balanced to have SRWWTP facilities accommodate some of the wet weather flows while minimizing idle SRWWTP facilities during dry weather. The SRWWTP was designed to accommodate some wet weather flows while the storage basins and interceptors were designed to accommodate the remaining wet weather flows.

The SRWWTP has a design and permitted average dry weather flow of 181 MGD. In 2000, the SRWTP received and treated an average of 155 MGD and was projected to increase and surpass the 181 MGD capacity by 2007. Accordingly, the *Sacramento Regional Wastewater Treatment Plant 2020 Master Plan* was prepared in order to provide for the expansion of the SRWWTP to 218 MGD based on growth rates expected to be achieved in the Sacramento County region, and provide a phased program of recommended wastewater treatment facilities and management programs to accommodate the planned growth and to meet existing and anticipated regulatory requirements through the year 2020. It should be noted that flows to the SRWWTP have decreased due to water conservation efforts over the last 10 years, and the State mandated water conservation efforts are expected to continue to further reduce the amount of wastewater in the future. In addition, the SRCSD has prioritized increasing water recycling in the region as an element to support the comprehensive effort to promote water supply reliability and Delta sustainability. Therefore, the SRCSD has determined the SRWWTP can provide capacity to future development beyond what was originally anticipated. Approximately 40 MGD of capacity is available at the SRWWTP.

SRCSD 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~~2010 contained ~~s 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 SRCSD. 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 more restrictive treatment levels over the then-current levels.~~ The SRCSD believed that many of the new conditions of the permit went beyond what is reasonable and necessary to protect the environment, and appealed the permit decision to the State Water Resources Control Board. In 2012, the State Water Resources Control Board upheld the permit. It should be noted that while waiting for a decision on the permit appeal, the SRCSD filed a lawsuit in Sacramento Superior Court in December 2011 seeking resolution on the permit matter. In April 2013, a partial settlement of the litigation was reached; however, the SRCSD has since dropped its lawsuit against the SWRCB's permit conditions.

On October 4, 2013, the Regional Water Board adopted an amendment to SRCSD's 2010 discharge permit that would result in more favorable conditions for SRCSD and its ratepayers as the SRCSD implements the required large-scale plant upgrades, which is now known as the EchoWater Project. The amendment results from the partial settlement reached between the SRCSD and the State and Regional Water Boards earlier in 2013.

The EchoWater Project involves large-scale plant upgrades, including new tertiary treatment processes for the removal of ammonia and nitrate and enhanced filtration and disinfection. The upgrades are intended to improve water quality in the Sacramento River and help alleviate ecological problems in the Delta.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

The first paragraph on page 5.12-13, Chapter 5.12, Utilities, Service Systems and Energy, of the Draft EIR is hereby revised as follows:

The ~~annexation~~ reorganization (annexation and related detachments) 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~~ reorganization (annexation and related detachments) 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).

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

The second through fourth paragraphs in the Water Supply section on page 5.12-23, Chapter 5.12, Utilities, Service Systems and Energy, of the Draft EIR are hereby revised as follows:

Cal-Am Water is designated as the current water service provider for the ~~annexation~~ reorganization (annexation and related detachments) portion of the proposed project site; however, it should be noted that, pursuant to correspondence received in 2012 from Cal-Am Water,¹ 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~~ reorganization (annexation and related detachments) 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~~ reorganization (annexation and related detachments) 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~~ reorganization (annexation and related detachments) would change the water purveyor for the ~~annexation~~ reorganization (annexation and related detachments) portion of the proposed project site from Cal-Am Water to the City.

Upon ~~annexation~~ reorganization (annexation and related detachments) 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.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

6 REORGANIZATION

For clarification purposes, all references to annexation in Chapter 6, Reorganization, of the Draft EIR (with exception to those referenced on page 6-1, page 6-11 bullet points B-2-b and B-2.d, and page 6-23 Section 6-5 in the first paragraph), are hereby revised as follows:

“~~annexation~~ reorganization (annexation and related detachments)”

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

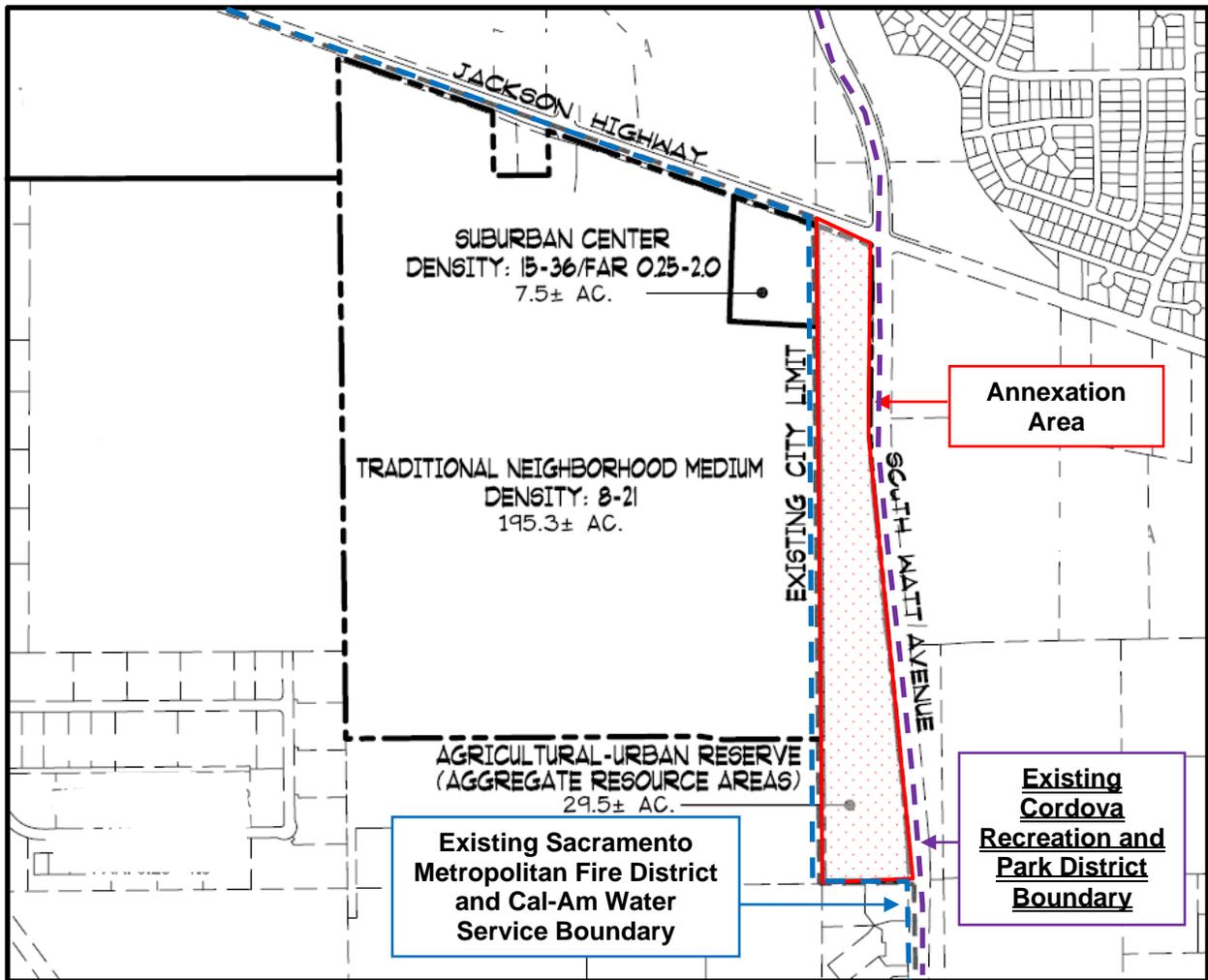
For clarification purposes, the second sentence of the last paragraph on page 6-1 in Chapter 6, Reorganization, of the Draft EIR is hereby revised as follows:

Mining on the project site was completed in the late 19960s 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 above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

For clarification purposes, the existing Cordova Recreation and Park District boundary is hereby added to Figure 6-1 on page 6-2 in Chapter 6, Reorganization, of the Draft EIR as shown on the following page. The change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

Figure 6-1
Reorganization (Annexation & Detachment) Area



For clarification purposes, the third paragraph on page 6-25 in Chapter 6, Reorganization, of the Draft EIR is hereby revised as follows:

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~~23.8 net 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 above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the last paragraph on page 6-26 in Chapter 6, Reorganization, of the Draft EIR is hereby revised as follows:

The ~~annexation~~ reorganization (annexation and related detachments) 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~~ reorganization (annexation and related detachments) portion or on surrounding lands. Thus, ~~annexation~~ reorganization (annexation and related detachments) 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 14.5 acres of public park and recreational areas, as well as 52.3 acres of open space and recreational areas, ~~which include the a~~ 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~~ reorganization (annexation and related detachments) 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 City of Sacramento General Plan MEIR.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the second paragraph on page 6-27 in Chapter 6, Reorganization, of the Draft EIR is hereby revised as follows:

The Aspen 1-New Brighton project, as a whole, would include a range of housing types, including ~~133.5-59.1 net acres~~ of land designated ~~Single-Family Low Density Residential~~, (including ~~8.8 acres to facilitate the development of an elementary school with an underlying designation of Single-Family Residential~~) and ~~43.4~~ 15.1 net acres of land designated ~~Multi-Family High Density Residential~~, and 13.5 net acres of land designated 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 ~~40-15~~ percent of the Aspen 1-New Brighton project's proposed residential units would be designated for low-income and very low-income housing.

The above change is for clarification purposes only and does not alter the conclusions of the Draft EIR.

7 CEQA CONSIDERATIONS

For clarification purposes, the last paragraph on page 7-1, as well as the first and second paragraphs on page 7-2, in Chapter 7, CEQA Considerations, of the Draft EIR are hereby revised as follows:

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~~ reorganization (annexation and related detachments) 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 ~~126.5-219.9~~ 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~~ 482 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 ~~137-205~~ income-restricted housing units. In addition, the project includes a mixed-use retail, employment, and residential development along Jackson Highway.

~~Potential b~~ Buildout of the proposed project's residential site with the existing land use designations would result in the development of ~~1,198 to 3,103 residential units~~ be within the allowable densities of the land use designations (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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

8 PROJECT ALTERNATIVES

For clarification purposes, the last paragraph on page 8-3 in Chapter 8, Project Alternatives, of the Draft EIR is hereby revised as follows:

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 ~~433.5~~ 59.1 net acres of land designated ~~Single-Family Low Density Residential~~ located in the northwest, center, and southeast portions of the project site, ~~as well as (including 8.8 net acres to facilitate the development of an elementary school, with an underlying designation of Single-Family Residential) and~~ In addition, 15.1 net acres of land designated ~~Multi-Family High Density Residential/~~ and 13.5 net acres of land designated Residential Mixed Use ~~would be~~ located in the central and southern portions of the project site. The project would include the following additional uses: ~~43.4~~ 10.8 net acres of land designated ~~Shopping Center/Commercial~~ located in the northeast portion of the site; ~~44.4~~ 14.5 net acres of land designated ~~Parks/Open Space~~ in three separate areas throughout the project site; ~~28.5 net acres of land designated Open Space/Medians located throughout the project site;~~ and ~~28.2~~ 23.8 net 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the Existing General Plan without Annexation Alternatives section on page 8-4 in Chapter 8, Project Alternatives, of the Draft EIR is hereby revised as follows:

Existing General Plan without Annexation Reorganization (Annexation and Related Detachments) Alternative

Under the Existing General Plan without ~~Annexation~~ Reorganization (Annexation and Related Detachments) 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~~ Reorganization (Annexation and Related Detachments) Alternative would not include ~~annexation reorganization (annexation and related detachments)~~ of the 29.5-acre Special Study Area west of South Watt Avenue. Similar to the proposed project, the Existing General Plan without ~~Annexation~~ Reorganization (Annexation and Related Detachments) 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 Reorganization (Annexation and Related Detachments)				
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~~ Reorganization (Annexation and Related Detachments) 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~~ Reorganization (Annexation and Related Detachments) 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first paragraph under Increased Density Alternative on page 8-5 in Chapter 8, Project Alternatives, of the Draft EIR is hereby revised as follows:

Under the ~~Reduced~~ Increased 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~~ reorganization (annexation and related detachments) 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 pre-zoning of the ~~annexation~~ reorganization (annexation and related detachments) area.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first paragraph under Reorganization on page 8-8 in Chapter 8, Project Alternatives, of the Draft EIR is hereby revised as follows:

The No Project/No Build Alternative would maintain the existing conditions of the project site. As such, ~~annexation~~ reorganization (annexation and related detachments) 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first paragraph under Reduced Density Alternative on page 8-8 in Chapter 8, Project Alternatives, of the Draft EIR is hereby revised as follows:

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~~ reorganization (annexation and related detachments) 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 pre-zoning of the ~~annexation~~ reorganization (annexation and related detachments) area.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first paragraph under Land Use, Population, and Housing on page 8-9 in Chapter 8, Project Alternatives, of the Draft EIR is hereby revised as follows:

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~~ reorganization (annexation and related detachments) 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

For clarification purposes, the first paragraph under Reorganization on page 8-12 in Chapter 8, Project Alternatives, of the Draft EIR is hereby revised as follows:

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~~ Reorganization (annexation and related detachments) 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

The second paragraph on page 8-14 in Chapter 8, Project Alternatives, of the Draft EIR is hereby revised as follows:

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~~ reorganization (annexation and related detachments) 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.

The above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

The second paragraph on page 8-17 in Chapter 8, Project Alternatives, of the Draft EIR is hereby revised as follows:

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~~ reorganization (annexation and related detachments) of the entire site would be required. ~~Annexation~~ Reorganization (annexation and related detachments) 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 above changes are for clarification purposes only and do not alter the conclusions of the Draft EIR.

Endnotes

ⁱ California-American Water. Letter re: California American Water Adjustment of Service Territory - Aspen 1. February 10, 2012.

3. COMMENTS AND RESPONSES

3	COMMENTS AND RESPONSES
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This chapter contains the comment letters received in response to the Draft EIR during the public review period (July 18, 2012, through August 31, 2012). Each comment letter is numbered, each comment is bracketed, and responses are provided to each comment. The responses amplify or clarify information provided in the Draft EIR and/or refer the reader to the appropriate place in the document where the requested information can be found. Comments that are not directly related to environmental issues (e.g., opinions on the merits of the project unrelated to its environmental impacts) may either be discussed or noted for the record. Where text changes in the Draft EIR are warranted based on comments received, updated project information, or information provided by City of Sacramento staff, those changes are included in the response to comment, and are also listed in Chapter 2 of this Final EIR. The changes to the analysis contained in the Draft EIR represent only minor clarifications/ amplifications and do not constitute significant new information. In accordance with CEQA Guidelines, Section 15088.5, recirculation of the Draft EIR is not required.

The City of Sacramento received 15 comment letters during the open comment period on the Draft EIR for the proposed project. The comment letters were authored by the following representatives of public agencies, organizations, individuals, and the applicant:

Agencies

- Letter 1 Kathleen Dadey, U.S. Army Corps of Engineers
- Letter 2 Amy Kennedy, State of California Department of Fish and Game
- Letter 3 Eric Fredericks, State of California, Department of Transportation
- Letter 4 Trevor Cleak, Central Valley Regional Water Quality Control Board
- Letter 5 Scott Morgan, Office of Planning and Research
- Letter 6 ... John Lewis, County of Sacramento, Environmental Management Division
- Letter 7 Dean Blank, County of Sacramento, Department of Water Resources
- Letter 8... Michael Johnson, County of Sacramento, Department of Water Resources
- Letter 9 Sarena Moore, Sacramento Regional County Sanitation District
- Letter 10 King Tunson, City of Sacramento Fire Department

Organizations

- Letter 11 Jonathan Ellison, Environmental Council of Sacramento
- Letter 12 Abel Pereira, Zanker Road Resource Management, Ltd.

Individuals

- Letter 13 Robert and Monica Maldonado

Applicant

Letter 14 Taylor & Wiley
Letter 15 Paul Bollard, Bollard Acoustical Consultants



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

Letter 1

August 29, 2012

Regulatory Division SPK-2012-00902

City of Sacramento
Attn: Dana Allen
Community Development Department
Environmental Planning Services
300 Richards Boulevard, Third Floor
Sacramento, California 95811

Dear Ms. Allen,

1-1

We are responding to your July 18, 2012 request for comments on the Aspen 1 New Brighton Project (Draft EIR). The project is located on Section 20, Township 7 North, Range 6 East, Mount Diablo Meridian, Latitude 38.448721°, Longitude -121.344260°, Sacramento County, California. Your identification number is SPK-2012-00902.

1-2

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, and marshes. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

1-3

Your Notice of Availability-Draft Environmental Impact Report for the Aspen 1 project mentions wash ponds and drying beds on the project site. To ascertain the extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetlands Delineations", under "Jurisdiction" on our website at the address below, and submit it to this office for verification. A list of consultants that prepare wetland delineations and permit application documents is also available on our website at the same location.

1-4

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

1-5

Please refer to identification number SPK-2012-00902 in any correspondence concerning this project. If you have any questions, please contact Julie Dickinson at our California Delta

-2-

Letter 1 cont

1-5
Con't

Office, 1325 J Street, Room 1350, Sacramento, California 95814-2922, email *Julie.E.Dickinson@usace.army.mil*, or telephone 916-557-5254. For more information regarding our program, please visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,



Kathleen A. Dadey
Chief, California Delta Branch

Copy Furnished:

Mr. Mike Isle, Stonebridge Properties, LLC, 3600 American River Drive, Suite 160,
Sacramento, California 95833

LETTER 1: KATHLEEN DADEY, U.S. ARMY CORPS OF ENGINEERS

Response to Comment 1-1

The comment is an introductory statement. The comment does not address the adequacy of the Draft EIR.

Response to Comment 1-2

As described in the first paragraph on page 5.2-38 of Chapter 5.2, Biological Resources, of the Draft EIR, the on-site features of the project site are not waters of the United States per the United States Army Corps of Engineer's (USACE) definition. As stated in the third paragraph on page 5.2-38, because the features on the project site are not considered waters of the United States, the discharge of fill material into the features are not regulated by either Section 404 or Section 401 of the Clean Water Act. Therefore, the project's pond features are not subject to USACE authorization.

Response to Comment 1-3

As noted on page 5.2-35 in Chapter 5.2, Biological Resources, of the Draft EIR, a survey assessing wetlands and other waters was conducted on the project site on March 24, 2009. The assessment concluded that the features on the project site were not waters of the United States, as discussed in Response to Comment 1-2 above and under Impact Statement 5.2-1 on page 5.2-38 of the Draft EIR.

Response to Comment 1-4

A reasonable range of feasible alternatives for the proposed project have been analyzed and addressed in Chapter 8, Project Alternatives, of the Draft EIR. As presented in Table 8-4 on page 8-18, the project alternatives would result in equal impacts related to biological resources as the proposed project. However, see Responses to Comments 1-2 and 1-3 above regarding filling waters of the United States.

Response to Comment 1-5

The comment provides contact information and does not address the adequacy of the Draft EIR.

Dana Allen

Letter 2

From: Amy Kennedy [AKENNEDY@dfg.ca.gov]
Sent: Thursday, August 23, 2012 3:02 PM
To: Dana Allen
Subject: Aspen 1 New Brighton DEIR Comment

Dana;

I had only one comment on the above mentioned Aspen 1 project.

On page 43 of the DEIR, under Impact Bio-3, the Swainson's hawk active nesting season is said to be March 30th through August 15th.

Per the Staff Report regarding Mitigation for Impacts to Swainson's hawks in the Central Valley (1994) and to remain consistent with other documents currently being reviewed, the work window for avoidance of Swainson's hawk should be March 1st to September 15th.

Please replace any incorrect Swainson's hawk work windows to say March 1st to September 15th.

Thank you

Amy Kennedy
Dept. of Fish and Game
1701 Nimbus Road
Rancho Cordova, CA 95670
916-358-2842
><)))*>... ><)))*>

2-1

LETTER 2: AMY KENNEDY, DEPARTMENT OF FISH AND GAME

Response to Comment 2-1

In response to this comment and for clarification purposes, the fifth paragraph on page 5.2-42 in Chapter 5.2, Biological Resources, of the Draft EIR is hereby revised as follows:

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~~1 to ~~August~~September 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*.

The above change provides clarification and does not alter any of the conclusions contained within the Draft EIR.

Letter 3

DEPARTMENT OF TRANSPORTATION
DISTRICT 3—SACRAMENTO AREA OFFICE
2379 GATEWAY OAKS DRIVE, SUITE 150
SACRAMENTO, CA 95833
PHONE (916) 274-0635
FAX (916) 274-0602
TTY 711
www.dot.ca.gov



*Flex your power!
Be energy efficient!*

September 14, 2012

032012SAC0058
SAC 16 PM 3.68
SCH# 2010072058

Ms. Dana Allen
Associate Planner
City of Sacramento
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

Aspen 1-New Brighton: Response to Comments for Draft Environmental Impact Report (DEIR)

Dear Ms. Allen:

3-1

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Aspen 1 project. 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 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. The project would include a total of 1,365 dwelling units. The development will be built at the southwest corner of Watt Avenue and State Route (SR) 16 (Jackson Highway). The following comments are based on the Draft Environmental Impact Report (DEIR).

Signalized Intersections on SR 16

3-2

The City of Sacramento is requesting the installation of two new signalized intersections on SR 16 as part of the traffic circulation plan. Two new signalized intersections within 500 feet of one another will not be allowed since this would violate Caltrans' design standards regarding signal spacing. One signal may be approved if all highway design standards and signal warrants are met.

Modeling Methodology

"Caltrans improves mobility across California"

Letter 3 cont

Ms. Dana Allen/City of Sacramento, Environmental Planning Services
September 14, 2012
Page 2

3-3

Without accurate information from the model runs, State Highway System (SHS) impacts and appropriate mitigation measures cannot be identified. Plus Project model runs indicate a decrease in volume from baseline conditions with the addition of the project. An additive method should be used for determining existing and cumulative plus project volumes. With this method, the model is used to determine the distribution of project trips, but not the redistribution of non-project trips with the addition of the project. Plus project volumes are derived by adding project trips to the baseline volumes for the existing and cumulative scenarios.

For example, in Table 5.10-22, the US 50 Westbound (WB) freeway mainline segment between Watt Avenue (Ave) and Bradshaw Road is proposed to carry four percent of project entrances during the AM peak hour, per Figure 5.10-9. Table 5.10-15 and Table 5.10-17 demonstrate that the project will produce 451 AM Peak Hour entrance trips for the Plus Project Alternative and 305 AM Peak Hour entrance trips for the No School Alternative. This equates to the addition of 18 and 12 trips for the WB US 50 Mainline segment for the Plus Project and No School Alternative Scenarios, respectively. However, in Table 5.10-22, the existing mainline volume for the Existing and Existing Plus Project scenario are identical (7,564), while the Existing Plus No School Alternative shows a decrease in volume to 7,559.

The model runs must be adjusted to accurately identify impacts and appropriate mitigation measures for the SHS.

Mitigation

3-4

The DEIR makes inaccurate and inappropriate findings regarding the identification and mitigation of significant impacts to the SHS. 14 percent of the project's trips will be generated to westbound US 50 by way of the Howe Ave. interchange. 16 percent of trips will be distributed to westbound US 50 by way of the Watt Ave. interchange (Figure 5.10-9). As indicated in the DEIR, US 50 is currently operating at Level of Service (LOS) F at these locations. The additional trips generated by this project will have a significant impact to US 50 during the peak periods. However, no freeway mitigation is proposed and the DEIR makes inaccurate and inappropriate findings regarding needed mitigation and the feasibility of certain mitigation measures, as follows:

Impact 5.10-3

3-5

We disagree with the findings of Impact 5.10-3. According to Table 5.10-22, the freeway mainline operating conditions associated with the Existing Plus No School Alternative scenario, the alternative would increase traffic volumes on the freeway mainline. However, the DEIR indicates changes in freeway mainline operating conditions would not exceed the standards of significance for impacts to the freeway mainline. The DEIR also states that impacts of the

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Ms. Dana Allen/City of Sacramento, Environmental Planning Services
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alternative would be less than significant, and the project would not create impacts outside of those anticipated within the General Plan MEIR.

We disagree with this analysis since both the current and future LOS for this segment of US 50 is F. Therefore any additional traffic to the mainline is considered a significant impact and appropriate mitigation measures or fair share contributions should be identified.

Impact 5.10-22

Impact 5.10-22 of the DEIR states:

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.*

3-6

Caltrans agrees that this is considered a significant impact.

However, the DEIR goes on to state: "*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.***"

Caltrans disagrees with this conclusion. Caltrans and its regional and local partners are pursuing the development of high occupancy vehicle lanes on US 50 from Watt to SR 99. The project is included in the SACOG 2035 Metropolitan Transportation Plan (MTP) and the Sacramento Transportation Authority (STA) has provided \$5,000,000 so that the environmental review process and preliminary design can begin. Additional funding has tentatively been programmed by STA. Therefore, a feasible mitigation measure for which the project could contribute fair share funding is clearly available.

3-7

Impact 5.10-25

Impact 5.10-25 of the DEIR states:

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Ms. Dana Allen/City of Sacramento, Environmental Planning Services
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Con't

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.

Caltrans disagrees with this conclusion. The additional trips from this project will further exacerbate off-ramp queuing. Any off-ramp queuing on to Mainline US 50 poses a significant safety issue and must be mitigated. Caltrans has experience in identifying feasible and appropriate mitigation measures to bring significant impacts to less than significant levels. Caltrans will work with the City to identify appropriate mitigation for SHS impacts.

Impact 5.10-30

Impact 5.10-30 of the DEIR states:

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.

Caltrans agrees that this is considered a significant impact.

However, the DEIR goes on to state that *"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 project on the freeway mainline would remain significant and unavoidable."*

Caltrans disagrees with this conclusion. Caltrans and its regional and local partners are pursuing the development of high occupancy vehicle lanes on US 50 from Watt to SR 99. The project is

"Caltrans improves mobility across California"

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Ms. Dana Allen/City of Sacramento, Environmental Planning Services
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↑ included in the SACOG 2035 MTP and the STA has provided \$5,000,000 so that the environmental review process and preliminary design can begin. Additional funding has tentatively been programmed by STA. Therefore, a feasible mitigation measure for which the project could contribute fair share funding is clearly available.

Encroachment Permit

3-9

Please be advised that any work or traffic control that encroaches onto the State right of way requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five sets of plans clearly indicating State right of way must be submitted to the following address: Tim Greutert, District Office Chief, Office of Permits, California Department of Transportation, District 3, 703 B Street, Marysville, CA 95901. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See the website linked below for more information.

<http://www.dot.ca.gov/hq/traffops/developserv/permits/>

Relinquishment of SR 16

3-10

Caltrans has entered into discussions with the City of Sacramento to relinquish SR 16 between Watt Avenue and Howe Avenue. Should the relinquishment occur and the City of Sacramento take ownership of this facility, then Caltrans will have no approval role on any or all modifications to Jackson Highway within the segment relinquished to the City. However, should relinquishment not occur, or occur after construction of Aspen 1 begins, Caltrans cannot approve any design changes that would not comply with the design standards set forth by the Highway Design Manual, and we cannot approve facility modifications that are incompatible with the SR 16 Transportation Corridor Concept Report.

If you have any questions regarding this letter, please contact Larry Brohman of my staff by telephone at (916) 274-0627 or larry_brohman@dot.ca.gov

Sincerely,



ERIC FREDERICKS, Chief
Office of Transportation Planning –South

c: Scott Morgan, State Clearinghouse

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LETTER 3: ERIC FREDERICKS, DEPARTMENT OF TRANSPORTATION

Response to Comment 3-1

The comment is an introductory statement and does not address the adequacy of the Draft EIR.

Response to Comment 3-2

The commenter notes that two signalized intersections are proposed to be located on SR 16 within 500 feet of one another. As shown on DEIR Figure 5.10-7, the signalized intersections 19 and 32 are located along SR 16 west of South Watt Avenue. Based upon the submitted plans (see DEIR Figure 3-4), the distance between the intersections is approximately 900 feet, and the intersections are located approximately 900 feet west of South Watt Avenue. Thus, the proposed signalized intersections do not violate Caltrans' design standards for signal spacing. It is noted that signal installation along a state highway is subject to Caltrans approval.

Response to Comment 3-3

The commenter disagrees with the DEIR traffic forecasting methodology.

As noted in Chapter 5.10 of the DEIR, SACOG's SACSIM regional travel model was utilized in the forecasting of vehicular traffic volumes on the area roadway network. The version of the SACSIM model used for this EIR is the same version that was used in the approved 2035 MTP, the Sacramento County General Plan update that was recently approved by the County Board of Supervisors and also in the traffic study conducted for the SR 16 (Jackson Road) Corridor Study. The SR16 study and Aspen 1 traffic projects were reviewed and accepted by Caltrans staff at earlier phases.

It is a well known practice by Caltrans, public agencies and traffic consultants to use the SACSIM model to evaluate traffic impact studies prepared for development projects since it is the most accurate and updated model that represent the latest policies and plans for the Sacramento region. An additive method as described by the commenter does not consider the redistribution of trips to new origins / destinations, nor the selection of new routes by existing travelers due to changes in travel patterns resulting from the new development. Hence, an additive method provides a conservative calculation of traffic volumes, often overestimating future traffic volumes and overestimating project impacts. Such simplistic methods were deemed inappropriate for a major mixed-use project such as Aspen 1.

The use of the SACSIM model includes a redistribution of trips, reflecting the new trip origins and destinations associated with the Aspen 1 mixed-use project. Because of this redistribution, non-project trips may be diverted to new origins or destinations, resulting in either decreases or increases on specific roadway segments. For example, shopping or employment trips may be diverted from other destinations to the retail and/or office components of Aspen 1. Additionally, the assignment of vehicular trips reflects the changes in trip distribution, rerouting existing, diverted, and new trips in response to demand and roadway capacity.

Response to Comment 3-4

The commenter disagrees with the findings of traffic impacts and resultant mitigation. The basis of this disagreement appears to be related to the traffic forecasting methodology described in the response to comment 3-3. The calculation of traffic at a particular roadway segment is not based solely on the calculation of the project trip generation and distribution, with the addition of this traffic to non-project traffic volumes. The DEIR methodology also considers the redistribution of existing trips, and diversion of trips due to changes in traffic volumes and travel times. The impacts listed in the DEIR are based upon traffic forecasting methodology and the thresholds of significance listed on DEIR pages 5.10-34 through 36. See also Responses to Comments 3-6, 3-7, and 3-8.

Response to Comment 3-5

The commenter disagrees with the findings of Impact 5.10-3. The findings of this impact are based upon the information presented in Table 5.10-22. Based upon the information in this table, the subject freeway mainline segments operate at level of service (LOS) D or E in the peak hours, and the addition of the project does not cause the segments to degrade to LOS F. Hence, impacts are deemed less than significant. The commenter claims that the freeway (current and future) operates at LOS F. This claim is not consistent with the analysis shown in Table 5.10-22 for existing conditions.

Response to Comment 3-6

The commenter agrees with the findings of traffic impact 5.10-22 but disagrees with the conclusion that there are no feasible mitigation measures available to mitigate this impact. The commenter suggests a provision of fair share contribution towards development of high occupancy vehicle lanes on US 50 from Watt to SR 99 would serve as a feasible mitigation measure.

It is worth noting that between the time of preparation of the DEIR and the FEIR, Sacramento County in coordination with Caltrans started the construction of Watt Avenue @ US 50 Interchange project. This project would provide multi-modal improvements along Watt Avenue and modify the existing interchange on US 50 at Watt Avenue to improve vehicle traffic operations and reduce congestion by widening the overcrossing and off-ramps, adding additional lanes for high occupancy vehicles to the freeway on-ramps, improvements to transit, pedestrian, and bicycle facilities. The construction is anticipated to be completed in 2014.

Paying a fair share contribution toward the development of the high occupancy vehicles (HOV) lanes on US-50 between from Watt Avenue to Howe Avenue is considered a feasible mitigation measure but will not bring the impact to less than significant. Therefore, Mitigation Measure 5.10-22 has been revised as follows:

- 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.** At the time of building permits, the~~

applicant shall pay fair share contribution toward the development of the high occupancy vehicles (HOV) lanes on US-50 from Watt Ave to Howe Ave. However, it cannot be guaranteed that the HOV lanes project on US-50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.

Additionally Mitigation Measure 5.10-23 has been revised as follows:

5.10-23 ~~No feasible mitigation measure has been identified. The impacts of the project on freeway ramp junctions would remain **significant and unavoidable**.~~ Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US-50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.

Response to Comment 3-7

The commenter disagrees with the conclusion of Mitigation Measure 5.10-25 and offers to work with the City to identify mitigation for state highway system impacts.

As shown on Table 5.10-33, the available storage in the US 50 eastbound exit to Howe Avenue was measured from the intersection stop bar to Hornet Drive ramp split and not to the mainline. Therefore, the ramp queuing with and without project was shown on Table 5.10-33 of the DEIR to exceed the available storage but it would not cause the queuing to reach US 50 mainline and cause a safety concerns. For US 50 westbound exit at Howe Avenue, widening the off ramp would improve the operation conditions of the right turn lane at this location and bring the impact of the project to less than significant. Because of the developed nature of properties to the north of SR 50, additional right of way for the expansion of the ramp is not available; therefore the impact was defined as significant and unavoidable. Also please see response to comment 3-6.

In addition, Mitigation Measure 5.10-25 has been revised as follows:

5.10-25 ~~No feasible mitigation measure has been identified. The impacts of the project on freeway ramp queuing~~ Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US-50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.

Response to Comment 3-8

The commenter agrees with the findings of traffic impact 5.10-30 but disagrees with the conclusion that there are no feasible mitigation measures available to mitigate this impact. The commenter suggests a provision of fair share contribution towards development of high occupancy vehicle lanes on US 50 from Watt to SR 99 would serve as a feasible mitigation measure.

Please see response to comment 3-6. Additionally, Mitigation Measures 5.10-30, 5.10-31 and 5.10-33 have been revised as follows:

- 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**. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US 50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.~~
- 5.10-31 ~~No feasible mitigation measure has been identified. The impacts of the alternative on freeway ramp junctions would remain **significant and unavoidable**. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US 50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.~~
- 5.10-33 ~~No feasible mitigation measure has been identified. The impacts of the alternative on freeway ramp queuing would remain **significant and unavoidable**. Implement Mitigation Measure 5.10-22. However, it cannot be guaranteed that the HOV lanes project on US 50 would be constructed prior to the build out of the project, therefore, for purposes of CEQA, this impact would remain **significant and unavoidable**.~~

Response to Comment 3-9

All required encroachment permits would be obtained for the proposed project. The comment shall be forwarded to the project applicant for their consideration.

Response to Comment 3-10

Comment noted.



Central Valley Regional Water Quality Control Board

Letter 4

27 August 2012

Dana Allen
City of Sacramento
Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811

CERTIFIED MAIL
7011 2970 0003 8939 2184

COMMENTS TO NOTICE OF AVAILABILITY FOR THE DRAFT ENVIRONMENTAL IMPACT REVIEW, ASPEN 1 - NEW BRIGHTON PROJECT, SACRAMENTO COUNTY

4-1

Pursuant to the City of Sacramento Community Development Department's 18 July 2012 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Notice of Availability for the Draft Environmental Impact Report* for the Aspen 1 - New Brighton Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

4-2

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.



Letter 4 cont

Aspen 1 - New Brighton Project
Sacramento County

- 2 -

27 August 2012

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

4-3

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

Industrial Storm Water General Permit

4-4

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

4-5

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

4-6

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Letter 4 cont

Aspen 1 - New Brighton Project
Sacramento County

- 3 -

27 August 2012

Waste Discharge Requirements

4-7

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.



Trevor Cleak
Environmental Scientist

LETTER 4: TREVOR CLEAK, CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

Response to Comment 4-1

The comment is an introductory statement. The comment does not address the adequacy of the Draft EIR.

Response to Comment 4-2

Comment noted. As stated in the last paragraph on page 5.6-16 in Chapter 5.6, Hydrology, Water Quality, and Drainage of the Draft EIR, the project applicant is required to obtain a General Permit for Discharges of Stormwater Associated with Construction Activity (CGP). The paragraph also states that the applicant must prepare a Stormwater Pollution Prevention Plan (SWPP) prior to construction.

Response to Comment 4-3

Comment noted. As discussed on page 5.16-18 and presented in Table 5.6-1 on page 5.6-22 in Chapter 5.6, Hydrology, Water Quality, and Drainage of the Draft EIR, the project would include extensive LID/post-construction BMPs that would reduce pollutants and runoff flows created by the project in accordance with pollutants of concern for the Sacramento area per the City's Stormwater Quality Partnership's Municipal Separate Storm Sewer System (MS4) Permit. The LID facilities proposed for use in the project include the following:

- 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.

Response to Comment 4-4

Comment noted. A detailed project description is provided in Chapter 3, Project Description, of the Draft EIR. As demonstrated in the Project Description chapter, the project does not consist of industrial land uses. Therefore, an Industrial Stormwater General Permit is not required for the project.

Response to Comment 4-5

Comment noted. As discussed in the third paragraph on page 5.2-38 of Chapter 5.2, Biological Resources, of the Draft EIR, the project does not include the discharge of dredged or fill material in waters of the United States or wetlands; therefore a Section 404 or Section 401 Permit under the Clean Water Act is not required.

Response to Comment 4-6

See Response to Comment 4-5 above.

Response to Comment 4-7

Impacts to non-federal waters of the State are addressed on pages 5.2-38 to 5.2-39 of the DEIR. As discussed, a Report of Waste Discharge is probably not required for six of the seven artificial industrial ponds and all of the drainage ditches on the project site, because they were created for use in the aggregate operations and have been subject to regular maintenance activities. However, the seventh industrial pond (on Mayhew property) has since been abandoned and not maintained and has thus reformed into an isolated wetland that could be subject to regulations under the Porter-Cologne Act. Therefore, the DEIR concludes that impacts to approximately 0.25 acre of seasonal wetland on the Mayhew property would be a potentially significant impact and identifies mitigation (Mitigation Measure 5.2-1) for that impact.

For clarification purposes and to ensure coordination with the Central Valley Regional Water Quality Control Board, Mitigation Measure 5.2-1 on page 5.2-39 of the DEIR is hereby revised as follows:

- 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, as determined based on consultation with the Central Valley Regional Water Quality Board.*

Letter 5



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

Memorandum

Date: August 16, 2012
To: All Reviewing Agencies
From: Scott Morgan, Director
Re: SCH # 2012072058
Aspen 1 – New Brighton

5-1

Pursuant to the attached letter, the Lead Agency has extended the review period for the above referenced project to September 14, 2012 to accommodate the review process. All other project information remains the same.

cc: Dana Allen
City of Sacramento
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Letter 5 cont

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CITY OF SACRAMENTO

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COMMUNITY DEVELOPMENT
DEPARTMENT

ENVIRONMENTAL PLANNING
SERVICES

CITY OF SACRAMENTO
CALIFORNIA

300 Richards Boulevard
Third Floor
Sacramento, CA 95811



August 16, 2012

To: State Clearinghouse

Re: **Aspen 1 – New Brighton Project (SCH 2010072058) Extension of review time**

The Community Development Department is requesting an extension of review time for the Draft EIR from August 31, 2012 to September 14, 2012. The extension of time is a request by the Department of Transportation, Caltrans.

If you have any questions regarding the document, you may contact me at (916) 808-2762 or email to dallen@cityofsacramento.org.

Thank you,

Dana Allen, Associate Planner



Letter 5 cont

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2010072028

Project Title: Aspen 1-New Brighton
 Lead Agency: City of Sacramento
 Contact Person: Dana Allen, Associate Planner
 Street Address: 300 Richards Boulevard, 3rd Floor
 Phone: (916) 808-2762
 City: Sacramento Zip: 95811 County: Sacramento

Project Location: County: Sacramento City/Nearest Community: Sacramento
 Cross Streets: Jackson Highway and South Watt Avenue Zip code: 95826
 Total Acres: 232
 Lat./Long: 38° 32' 07.57" N / 121° 32' 32.22" W
 Assessor's Parcel No. 078-0202-007, -008, -009. Section: 13 Twp: 8N Range: 5E Base: M12BM
 -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
 Within 2 Miles: State Hwy#: 16, 50 Waterways: American River
 Airports: Railways: Schools: Baneroff, Golden Gate, Heron Spring House, Enterprise, and Thomas Jefferson Elementary Schools

RECEIVED
 JUL 17 2012
 H/CPA

Document Type:
 CEQA: NOP Draft EIR Supplement/Subsequent EIR (Prior SCH No.) Other:
 NEPA: NOI EA Draft EIS FONSI
 Other: Joint Document Final Document Other:

Local Action Type:
 General Plan Update Specific Plan Rezone Annexation
 General Plan Amendment Master Plan Prezone Redevelopment
 General Plan Element Planned Unit Development Use Permit Coastal Permit
 Community Plan Site Plan Land Division (Subdivision, etc.) Other: Reorganization
 Other: Bikeway Master Plan Amendment

Development Type:
 Residential: Units 1,365 Acres 176.6 Employees
 Office: Sq.ft. Acres 13.1 Employees
 Commercial: Sq.ft. Acres 13.1 Employees
 Industrial: Sq.ft. Acres Employees
 Educational: 8.8-acre elementary school
 Recreational: 14.4 acres of parks/open space
 Water Facilities: Type MGD
 Transportation: Type
 Mining: Mineral
 Power: Type MAF
 Waste Treatment: Type MGD
 Hazardous Waste: Type
 Other: 28.2-acre urban farm

Project Issues That May Have a Significant or Potentially Significant Impact:
 Aesthetic/Visual Fiscal Public Services/Facilities Traffic/Circulation
 Agricultural Land/Forest Flood Plain/Flooding Recreation/Parks Vegetation
 Air Quality Forest Land/Fire Hazard Schools/Universities Water Quality
 Archeological/Historical Geologic/Seismic Septic Systems Water Supply/Groundwater
 Biological Resources Greenhouse Gas Emissions Sewer Capacity Wetland/Riparian
 Coastal Zone Minerals Soil Erosion/Compaction/Grading Growth Inducement
 Drainage/Absorption Noise Solid Waste Land Use
 Economic/Jobs Population/Housing Balance Toxic/Hazardous Cumulative Effects

Present Land Use/Zoning/General Plan Designation: Land Use: former aggregate mining site with a conveyor belt system, one structure, and several trees on-site/Zoning: Heavy Industrial/GP, Special Study Area, Traditional Neighborhood Medium, and Suburban Center.

Project Description: (please use a separate page if necessary)
 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

State Clearinghouse Contact: (916) 445-0613

State Review Began: 07-18-2012

SCH COMPLIANCE 9-14-2012
 Extended Per Lead

Please note State Clearinghouse Number (SCH#) on all Comments

SCH#: 2010072028
 Please forward late comments directly to the Lead Agency

Project Sent to the following State Agencies

- Resources
- Boating & Waterways
- Coastal Comm
- Colorado Rvr Bd
- Conservation
- Fish & Game # 2
- Delta Protection Comm
- Cal Fire
- Historic Preservation
- Parks & Rec
- Central Valley Flood Prot.
- Bay Cons & Dev Comm.
- DWR
- Cal EMA
- Resources, Recycling and Recovery
- Bus Transp Hous
- Aeronautics
- CHP
- Caltrans # 3
- Trans Planning
- State/Consumer Svcs
- General Services
- Cal EPA
- ARB: Airport/Energy Projects
- ARB: Transportation Projects
- ARB: Major Industrial Projects
- SWRCB: Div. Financial Assist.
- SWRCB: Wtr Quality
- SWRCB: Wtr Rights
- Reg. WQCB # 55
- Toxic Sub Ctrl-CTC
- Yth/Adlt Corrections
- Corrections
- Independent Comm
- Energy Commission
- NAHC
- Public Utilities Comm
- State Lands Comm
- Tobacco Pol Plan Agency

LETTER 5: SCOTT MORGAN, STATE OF CALIFORNIA, OFFICE OF PLANNING AND RESEARCH

Response to Comment 5-1

The comment notes that the public review period was extended per a request from Caltrans. The comment does not address the adequacy of the Draft EIR.

Letter 6

Countywide Services Agency

Environmental Management
Department

Environmental Compliance Division
Elise Rothschild, Chief



County of Sacramento

Bradley J. Hudson, County Executive
Ann Edwards, Chief Deputy County Executive
Val F. Siebal, Department Director

August 31, 2012

Dana Allen
City of Sacramento Community Development Department
Environmental Planning Services
300 Richards Blvd. 3rd Floor
Sacramento, CA 95811

Dear Ms. Allen:

**SUBJECT: REVIEW OF THE ASPEN 1- NEW BRIGHTONPROJECT DRAFT
ENVIRONMENTAL IMPACT REPORT**

The Sacramento County Environmental Management Department (EMD) has reviewed the Draft Environmental Impact Report (DEIR) for the Aspen 1 – New Brighton Project. EMD acts as the Local Enforcement Agency (LEA) for the California Department of Resources, Recycling, and Recovery (CalRecycle) in Sacramento County. As such, EMD has authority and responsibility for regulatory oversight of solid waste handling and disposal sites in the city and county of Sacramento. As you know, this project would border both L and D Landfill which lies directly to the south and Florin Perkins Landfill which lies directly to the west of the project.

L and D Landfill is an active landfill that receives mostly non-putrescible wastes. The facility does, however, also receive and bury processed green waste which it uses as alternative daily cover. This material has the potential to create odors as well as produce methane and other landfill gases as it decomposes, as may other non-inert wastes buried at the landfill. This facility does produce landfill gases which are currently controlled by a landfill gas extraction system. Collected gases are burned in an enclosed, on-site flare. There is currently no backup generator system in place to power the gas extraction system, in the event of an extended power failure. Landfill gases are flammable and potentially explosive. There is the potential for landfill gas migration at any time the extraction system is off line.

Florin Perkins Landfill is a closed landfill that received mostly non-putrescible construction and demolition wastes. Like L and D, however, this site also received and buried green waste and other non-inert wastes so it produces landfill gases. While it is difficult to predict how long landfills may continue to generate methane and other landfill gases, there are landfills in the county that are still generating gases fifty years after the last waste was buried. Florin Perkins Landfill is currently under an LEA order to develop a Landfill Gas Monitoring and Control Plan. There is currently no landfill gas control system in place.

6-1

Letter 6 cont

Aspen 1 New Brighton Project
September 4, 2012
Page 2 of 3

6-1
Con't

There is also an active, permitted transfer station on the site that is permitted to process up to 500 tons of non-putrescible wastes per day.

The LEA provides the following comments regarding the proximity of the project to the two solid waste facilities:

6-2

1) The DEIR cites the two landfills as two of the four potential odor sources in the vicinity and states that there will be a significant and unavoidable impact as a result of the four odor sources. Although odors are not typically an issue at either landfill, the LEA agrees with this assessment but would like to add that while the DEIR states that no odor complaints were received for the two landfills during the last three years of the timeframe examined, several odor complaints were received during April and May of 2012. Upon investigation, the LEA determined that the odors originated at the Elder Creek Recovery and Transfer station located at 8642 Elder Creek Road, but it appears that the odors may have been exacerbated by transfer of the offending material – decomposing green waste – to L and D Landfill for use as Alternative Daily Cover. It should be noted that some of the complainants were residents of the apartment complex located at the northeast corner of Jackson Road and South Watt Avenue, just across Watt Avenue from the proposed project. This project would add new receptors in even closer proximity to the landfills. The LEA recommends that at a minimum, potential home buyers be notified in writing of the possibility of odors from the landfills and transfer station.

6-3

2) Noise and vibration from the two landfills and transfer station are considered in the DEIR. The Executive Summary concludes that even with implementation of mitigation measures, impacts related to existing noise sources within the project area would remain significant and unavoidable. The LEA concurs with this and would point out that periodic problems associated with dust and litter from the landfills may also be likely. It should be noted that 14 CCR 17867(a)(2) requires facilities to minimize nuisances, such as odors, dust, noise, and vectors but there is no requirement to reduce the potential for odors or nuisances to zero. The LEA recommends that at a minimum, potential home buyers be notified of the potential for noise, vibration, dust, and litter from the landfills and transfer station.

6-4

3) As stated, both landfills produce landfill gases. It should be noted that wastes that produce these gases are buried in areas that directly abut the project's south and west boundaries. Currently, both landfills monitor for migrating gases with monitoring probes located near the edges of their respective properties. In both cases, the probes were installed along property perimeters with maximum 1000' spacings, as required by 27 CCR 20925(b)(1). This maximum spacing reflects the current absence of receptors in the proposed project's location. If the project

Letter 6 cont

Aspen 1 New Brighton Project
September 4, 2012
Page 3 of 3

6-4
Con't

is developed, monitoring well spacing will likely have to be reduced, as required by 27 CCR 20925(b)(3), which requires that monitoring well spacing be reduced as necessary to protect persons and structures threatened by landfill gas migration, resulting in added costs to the landfill operators. Also, continuous gas monitoring of any structure located within 1000' of waste is advised. The LEA recommends that no structures be built within 1000' of waste. If structures associated with this project are to be built within 1000' of waste, the LEA recommends that they be built in a manner that would reduce the likelihood of gas accumulation in the structure such as with a foundation membrane layer. Notification of potential home buyers of the possibility of gas migration and the associated dangers, and continuous gas monitoring of the structures should also be considered.

Sincerely,



John Lewis
Environmental Specialist III
County of Sacramento
Environmental Management Department
Solid Waste Program

JL:jm

c: Nevin Yeates, CalRecycle

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LETTER 6: JOHN LEWIS, COUNTY OF SACRAMENTO, ENVIRONMENTAL MANAGEMENT DEPARTMENT

Response to Comment 6-1

The comment is an informative introductory statement and does not address the adequacy of the Draft EIR. The proximity of the project to the Florin Perkins Landfill, and the L and D Landfill has been noted in paragraph four, page 3-1, of Chapter 3, Project Description, of the Draft EIR.

Response to Comment 6-2

In response to the comment, the following mitigation measure is hereby added to page 5.1-32, Chapter 5.1, Air Quality and Climate Change, of the Draft EIR:

Mitigation Measure(s)

~~None feasible.~~ Implementation of the following mitigation measure, which requires written notification to potential homebuyers, would increase awareness of odors near the project site, but would not reduce the impact to a less-than-significant level. Therefore, the impact would remain significant and unavoidable

5.1-7 All prospective residents of residences located within the project site shall be provided statements disclosing that operations at the Florin Perkins Landfill, L and D Landfill, and transfer station have the potential to emit objectionable odors, and produce noise, vibration, dust, and litter.

It is noted that the above added mitigation to the Draft EIR would not lessen the impact related to objectionable odors to a less-than-significant level. The impact would remain *significant and unavoidable*.

Response to Comment 6-3

See Response to Comment 6-2 above.

Response to Comment 6-4

The comment expresses concerns about the production of landfill gases (LFG) directly adjacent to the project's south and west boundaries and recommends structures be located a minimum of 1,000 feet away or have continuous monitoring and a foundation membrane layer. The Draft EIR, on page 5.5-8 concluded that data from the existing 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. The Draft EIR concluded the impact would be less than significant.

In response to the concerns raised in the comment, Nichols Consulting Engineers (NCE) has prepared a Landfill Gas Evaluation of the Florin Perkins and L and D Landfills for the Aspen 1 Property (September 27, 2013) (attached as Appendix B to this document). The report notes that the Florin Perkins Landfill has a low potential to generate and migrate LFG due to the lack of methane detected in perimeter LFG probes above the regulatory limit of 5 percent methane by volume. In addition, the report concludes the lack of LFG is further supported by:

- The type of waste at the Florin Perkins Landfill is not conducive to the production of large quantities of LFG.
- The potential for LFG production is likely at or near its peak.
- The relatively dry nature of the waste.
- The ability of the LFG to vent upwardly versus horizontally.
- The limited lateral migration of LFG as measured by the existing perimeter probes.
- The expected passive venting system to be installed within all three units to further enhance venting reducing the potential for horizontal migration of LFG.
- Current and future regulatory controls associated with closure and corrective actions at the landfill.

The report also addresses the L and D Landfill's potential migration of LFG. L and D Landfill is currently producing LFG and will continue to do so well past the time it stops accepting waste; however, the landfill is managing the migration of LFG with a functioning LFG extraction system. Continued management of the LFG extraction system presents a low risk with respect to the migration of LFG to adjacent properties. This is further supported by the lack of methane detected in the perimeter LFG probes above the limit of 5 percent by volume.

The supplemental report supports the conclusions identified in the previous report and the Draft EIR, and does not result in significant new information requiring recirculation. Although the NCE report concurred with the EIR's less-than-significant conclusion with respect to landfill gas impacts, NCE recommended an "ameliorative strategy" for added protection of the proposed uses at the southeast corner of the Aspen 1 site (see page 28 of the NCE report). Consistent with this recommendation, the applicant has voluntarily agreed to incorporate one or more of the following into the project: 1) the installation of geomembrane systems for planned structures on the school and multi-family sites and/or 2) the provision of a backup power generator (portable power generator) for the L and D Landfill.

Letter 7

Municipal Services
Robert B. Leonard
Chief Deputy County Executive

Department of Transportation
Michael J. Penrose, Director



County Executive
Bradley J. Hudson

County of Sacramento

August 23, 2012

Ms. Dana Allen
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Blvd, 3rd Floor
Sacramento, CA 95811

**SUBJECT: COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR
THE ASPEN 1 – NEW BRIGHTON PROJECT**

Dear Ms. Allen:

7-1

The Sacramento County Department of Transportation (SACDOT) reviewed the draft environmental impact report (DEIR) for the Aspen 1-New Brighton project. We appreciate the opportunity to review this document and have the following comments to offer.

7-2

1. **General.** The City of Sacramento should coordinate with Department of Transportation staff and County Special District Services staff (formally Infrastructure Finance Section) for the fair share payments towards mitigation measures on the County's roadway facilities. We understand that the mitigation measures cannot be implemented in the near term due to partial funding. However, the DEIR calls these impacts significant and unavoidable which should not preclude the project from paying its fair share towards the mitigation measure. These mitigation measures are feasible and consistent with the County's General Plan. The mitigation measures affecting County roadway facilities are 5.10-1(b)/5.10-10/5.10-20(a)/ 5.10-28(a) for South Watt Avenue and Jackson Road, and 5.10-1(a) for South Watt Avenue and Folsom Boulevard.

7-3

2. **General.** Please coordinate with Department of Transportation prior to accepting the rights of way for South Watt Avenue and Jackson Road along the project frontage to insure an adequate dedication is made for the high capacity intersection at South Watt Avenue and Jackson Road. The right of way foot print along the project frontage on South Watt Avenue and Jackson Road should be consistent with the Jackson Road Corridor Study.

Should you have any questions, please feel free to contact me or Kamal Atwal at (916) 874-6291.

Sincerely,

Dean Blank, P.E.
Principal Civil Engineer
Department of Transportation



"Leading the Way to Greater Mobility"

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Operations & Maintenance: 4100 Traffic Way, Sacramento, CA 95827 . Phone: 916-875-5123 . Fax: 916-875-5363
www.sacdot.com

Letter 7 cont

Ms. Dana Allen
August 23, 2012
Page 2

KA

Cc: Dan Shoeman – DOT
Matt Darrow – DOT
Kamal Atwal– DOT
Susan Goetz - SDS

LETTER 7: DEAN BLANK, COUNTY OF SACRAMENTO, DEPARTMENT OF TRANSPORTATION

Response to Comment 7-1

The comment is an introductory statement and does not address the adequacy of the Draft EIR.

Response to Comment 7-2

The commenter recommends that the City of Sacramento coordinate with Sacramento County Department of Transportation (SAC-DOT) staff and County Special District Services staff for the fair share payments towards mitigation measures on the County's roadway facilities. The mitigation measures affecting County roadway facilities are 5.10-1(b)/ 5.10-10/ 5.10-20(a)/ 5.10-28(a) for South Watt Avenue and Jackson Road, and 5.10-1(a) for South Watt Avenue and Folsom Boulevard.

Calling the impacts significant and unavoidable would not preclude the project from paying its fair share contribution toward the improvements that are consistent with the County's General Plan. Coordination between the City and the County is required to estimate the cost of such improvements and the amount of the fair share contribution to be paid by the applicant of the project.

Response to Comment 7-3

The commenter requests that the right-of-way dedication for South Watt Avenue and Jackson Road along the project frontage is coordinated with County of Sacramento Department of Transportation and that the right of way footprint is consistent with the Jackson Road Corridor Study.

The City of Sacramento Department of Public Works will coordinate the right-of-way dedication of South Watt Avenue and Jackson Road with the County of Sacramento. The City will work with the applicant to make sure that the right of way dedication along Jackson Road is consistent with the SR16 (Jackson Rd) Corridor Study.

Letter 8

Robert B. Leonard
Chief Deputy County Executive

Department of Water Resources
Michael L. Peterson, Director



Bradley J. Hudson
County Executive

County of Sacramento

14 September 2012

Dana Allen
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Blvd, Third Floor
Sacramento, CA 95811

Re: Draft Environmental Impact Report for the Aspen 1 – New Brighton Project
Project No. P09-038/M09-032

Dear Ms Allen,

Thank you for the opportunity to review and comment on the Aspen 1 Draft EIR. The Sacramento County Department of Water Resources has the following comments and recommendations for the subject project.

8-1

1. The Aspen 1 Project proposes to drain developed runoff from an area that currently retains runoff, directly into the jurisdiction of Sacramento County through two new culverts under South Watt Avenue. The Drainage Report for Aspen 1 proposes to use low impact development (LID) measures to significantly reduce the volume of runoff from the Aspen 1 project area. Sacramento County has not been provided the opportunity to review the drainage study and to verify that the LID measures can effectively achieve runoff reduction. Also, the long term effectiveness of these LID measures to reduce runoff volume is unproven.

8-2

Sacramento County recommends that the project applicant prepares a Master Drainage Study for the entire mining pit that includes ultimate development of the Aspen 1 project area and the off-site mining pit before Sacramento County approves construction of the culverts and accepts runoff from the project area. Additionally, a long-term maintenance plan and funding program should be developed for the LID facilities within Aspen 1 to ensure the predicted reduction of runoff flow and volume is sustained so there are no impacts to downstream facilities in the County of Sacramento.

"Managing Tomorrow's Water Today"

Main Office: 827 7th St., Rm. 301, Sacramento, CA 95814 • (916) 874-6851 • Fax (916) 874-8693 • www.saccounty.net (search: DWR)

Letter 8 cont

- 8-3 2. The right embankment of Morrison Creek between Mayhew Road and Bradshaw Road acts as a levee that protects the entire mining pit area, including the proposed Aspen 1 project area. This levee section, and other newly constructed levees along Morrison Creek that protect the project area, must be certified to provide protection to the one-percent-annual-chance flood and be accredited by FEMA in order to remove the mining pit area from the special flood hazard area on the flood insurance rate map (FIRM). It should be recognized that the mining pit, including the Aspen 1 project area, may be shown on the FIRM as protected from flooding by a levee after the levees are accredited. Levees protecting the Aspen 1 project area as well as other future development projects in the mining pit must be maintained in perpetuity, and will require periodic re-accreditation. The project owner must participate in the formation and implementation of an assessment district that provides for maintenance of the levees and their re-accreditation. The assessment district must include properties within the Aspen 1 project area.
- 8-4 3. The draft EIR suggests that the newly constructed retention channel and basin would remain privately owned, operated and maintained after the proposed project is completed. The project owner must participate in the formation and implementation of an assessment district for the purpose of timely maintenance of the retention channel and basin. The assessment district must include properties within the Aspen 1 project area.

Again, thank you for the opportunity to comment, please contact me if you any questions or concerns.

Sincerely,



Michael Johnson
Associate Civil Engineer
Drainage Development/ Hydrology Review
(916) 874-8646
johnsonm@saccounty.net

LETTER 8: MICHAEL JOHNSON, COUNTY OF SACRAMENTO, DEPARTMENT OF WATER RESOURCES

Response to Comment 8-1

It is noted that Sacramento County oversees projects within their jurisdiction, and can require their own review of studies for projects to determine their effectiveness. The Drainage Report was included as an appendix to the Draft EIR, Appendix L. According to Table 6-10, on page 24 of Appendix L, surface runoff (ac-ft.) produced by the proposed project would be reduced by 53 percent with the implementation of low impact development (LID) measures. The County of Sacramento has the opportunity to review the effectiveness of the LID measures at the time of permitting the improvements within their jurisdiction.

Response to Comment 8-2

The Draft EIR addresses impacts related to drainage and flooding due to the proposed project, and provides 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*, included in Appendix L (drainage report) of the Draft EIR. The Draft EIR and drainage report analyze drainage impacts from the proposed project at full buildout, and analyze off-site impacts based on their undeveloped state. With implementation on Mitigation Measure 5.6-3, on page 5.6-34 of the Draft EIR, impacts related to flooding would be reduced to *less than significant*. The O&M Plan addresses the vegetative, structural, and growing/filter media elements of the proposed LID facilities. Compliance with the O&M Plan is expected to enhance the long-term viability of the proposed LID facilities on the project site to treat stormwater runoff. Furthermore, the City of Sacramento cannot require a Drainage Master Plan within the County's jurisdiction. However, the proposed project requires a grading permit from Sacramento County for off-site improvements, at which time the County can require an additional drainage study for their review.

Response to Comment 8-3

Mitigation Measure 5.6-4, on page 5.6-34 of the Draft EIR, and as revised in Response to Comment 14-21, provides the following regarding levee accreditation for the proposed project:

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). 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.

Implementation of Mitigation Measure 5.6-4 above would reduce impacts related to exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood, and placing housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map to *less than significant*.

It is noted that the funding and formation of an assessment district is not a CEQA issue; however, the commenter's concern regarding the assessment district will be forwarded to the decision-makers for their consideration.

Response to Comment 8-4

As stated in Response to Comment 8-1, Sacramento County has jurisdiction over the off-site drainage portion of the project, and have the ability to review the proposed construction of the retention channel and basin, and provide their own conditions to their permit issuance. In addition, as above-mentioned in Response to Comment 8-3, funding mechanisms for the proposed project are not subject to CEQA review. Thus, the commenter's concern regarding the formation and implementation of an assessment district for the retention channel basin is not a CEQA issue; however, the comment will be forwarded to the decision-makers for their consideration.

Letter 9



Wastewater Management

Main Office
10060 Goethe Road
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Sacramento Regional Wastewater
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Board of Directors
Representing:

- County of Sacramento
- County of Yolo
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Director of Policy & Planning
- Karen Stoyanowski
Director of Internal Services
- Joseph Maestretti
Chief Financial Officer
- Claudia Goss
Public Affairs Manager

August 13, 2012

Dana Allen
Associate Planner
City of Sacramento Community Development Department
Environmental Planning Services
300 Richards Blvd. Third floor
Sacramento, CA 95811

Subject: Notice of Availability – Draft Environmental Impact Report for the Aspen 1 – New Brighton Project

Dear Ms. Allen:

Sacramento Regional County Sanitation District (SRCSD) and the Sacramento Area Sewer District (SASD) have reviewed the Notice of Availability for the DEIR for the Aspen 1 New Brighton project and have the following comments:

9-1

Since completion of the DEIR, SASD has updated their System Capacity Plan (SCP). The SASD 2010 System Capacity Plan Update was approved by the SASD Board of Directors in January 2012.

Specifically, the following should be updated within the DEIR:

1. Page 3-13, Wastewater: Please revise as follows:

Wastewater collection and treatment for the proposed project would be provided by the Sacramento Area Sewer District (SASD) and Sacramento Regional County Sanitation District (SRCSD) respectively. Sewer infrastructure, within project boundary and South Watt Avenue, would include a 15-inch sewer main that would connect to a new SASD sewer lift station on east side of South Watt Avenue. A 10-inch force main would convey the flows from the proposed lift station to the existing Northeast interceptor within Fruitridge Road.

9-2

2. Page 5.12-11, Wastewater Collection and Treatment, Sacramento Area Sewer District: Please revise as follows:

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, Elk Grove, Rancho Cordova, portions of the City of Sacramento, and a small area in the City of Folsom. The service area covers approximately 270 square miles and has a population of over 1.1 Million.

9-3

The collector and trunk pipelines that SASD operates connect to the larger regional interceptor conveyance facilities maintained by Sacramento Regional County Sanitation District (SRCSD).

The SASD 2010 System Capacity Plan and the approved sewer study for the project, proposes construction of a new sewer trunk line along South

Letter 9 cont

- 9-3
Con't
- Watt Avenue and a new pump station with a force main connection to Northeast interceptor at Fruitridge Road. The purpose of the trunk line and the lift station is to provide service to Aspen 1 project and create capacity for future development in the project vicinity specifically, north and east of the project site.
- 9-4
- 3. Page 5.12-11, Wastewater Collection and Treatment, Sacramento Regional County Sanitation District : Please add the following:**
- SRCS D is in the process of finalizing an Interceptor Sequencing Study that will aid SRCSD in planning and implementing regional conveyance projects and assists SASD in coordinating collection system facilities.
- 9-5
- 4. Page 5.12-11, Wastewater Collection and Treatment, Sacramento Regional Wastewater Treatment Plant and Page 5.12-26, Increased demand for wastewater collection and treatment, Paragraph 4: Please use the following information to revise these sections**
- The SRWTP provides secondary treatment using an activated sludge process. Incoming wastewater flows through mechanical bar screens through a primary sedimentation process. This allows most of the heavy organic solids to settle to the bottom of the tanks. These solids are later delivered to the digesters. Next, oxygen is added to the wastewater to grow naturally occurring microscopic organisms, which consume the organic particles in the wastewater. These organisms eventually settle on the bottom of the secondary clarifiers. Clean water pours off the top of these clarifiers and is chlorinated, removing any pathogens or other harmful organisms that may still exist. Chlorine disinfection occurs while the wastewater travels through a two mile "outfall" pipeline to the Sacramento River, near the town of Freeport, California. Before entering the river, sulfur dioxide is added to neutralize the chlorine. The design of the SRWTP and collection system was balanced to have SRWTP facilities accommodate some of the wet weather flows while minimizing idle SRWTP facilities during dry weather. The SRWTP was designed to accommodate some wet weather flows while the storage basins and interceptors were designed to accommodate the remaining wet weather flows.
- 9-6
- A new NPDES Discharge Permit was issued to Sacramento Regional County Sanitation District (SRCSD) by the Central Valley Regional Water Quality Control Board (Water Board) in December 2010. In adopting the new Discharge Permit, the Water Board required SRCSD to meet significantly more restrictive treatment levels over its current levels. SRCSD believes that many of these new conditions go beyond what is reasonable and necessary to protect the environment, and has appealed the permit decision to the State Water Resources Control Board. A decision on that appeal has not yet occurred. In the meantime, SRCSD is required to begin the necessary activities, studies and projects to meet the new permit conditions. All new treatment facilities must be completed by 2020.
- 9-7
- There are incorrect statements within the subject document regarding the permitted average dry weather flow (ADWF), permitted wet weather flow and the design capacity of the SRWTP. The SRWTP NPDES Permit adopted in December 2010 lists the permitted capacity as 181 MGD ADWF.

Letter 9 cont

If you have any questions regarding these comments, please contact me at 916-876-9994

Sincerely,



Sarena Moore
SRCSD/SASD
Policy and Planning

Cc: SRCSD Development Services, SASD Development Services, Michael Meyer, Dave Ocenosak, Prabhakar Somavarapu

LETTER 9: SARENNA MOORE, SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT

Response to Comment 9-1

The comment is an introductory statement and does not address the adequacy of the Draft EIR.

Response to Comment 9-2

In response to this comment and for clarification purposes, the last paragraph on page 3-13, Chapter 3, Project Description, of the Draft EIR is hereby revised as follows:

Wastewater collection and treatment for the proposed project would be provided by the Sacramento Area Sewer District (SASD) and the Sacramento Regional County Sanitation District (SRCSD), respectively. Sewer infrastructure, within the project boundary and South Watt Avenue, would include a 15-inch sewer main that would connect to a new Sacramento Area Sewer District (SASD) sewer lift station on the east side of South Watt Avenue, and a 10-inch force main that would convey the flows run from the proposed lift station to the existing central Northeast 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).

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 9-3

In response to this comment and for clarification purposes, the Wastewater Collection and Treatment, Sacramento Area Sewer District section on page 5.12-10 and 5.12-11, in Chapter 5.12, Utilities, Service Systems, and Energy, of the Draft EIR, is hereby revised as follows:

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, Rancho Cordova, 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~~ 1.1 Million.

The ~~smaller local~~ collector and trunk pipelines that SASD operates connect to the larger regional interceptor conveyance ~~collection~~ facilities maintained by Sacramento Regional County Sanitation District (SRCSD).

The SASD 2010 System Capacity's master pPlan and the approved sewer study for the project, proposes construction of a new sewer trunk line (Gravel West Trunk Shed Project) from north of Jackson Highway along South Watt Avenue and a new pump station with a force main connection to Northeast interceptor at te Fruitridge Road. The purpose of the trunk line and the lift station is to provide service to the proposed project and create capacity for future development in the project vicinity specifically especially north and east of the project site.

The above changes are for clarification only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 9-4

In response to this comment and for clarification purposes, the following is hereby added to the third paragraph on page 5.12-11, Chapter 5.12, Utilities, Service Systems and Energy, of the Draft EIR:

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. In addition, SRCSD is in the process of initializing an Interceptor Sequencing Study that will aid SRCSD in planning and implementing regional conveyance projects and assists SASD in coordinating collection system facilities.

The above change is for clarification only and does not alter any of the conclusions contained within the Draft EIR.

Response to Comment 9-5

In response to the comment, the following text has been added on page 5.12-11 under the Sacramento Regional Wastewater Treatment Plant section of the Draft EIR:

Sacramento Regional Wastewater Treatment Plant

The Sacramento Regional Wastewater Treatment Plant (SRWWTP) , located in Elk Grove, serves the entire Sacramento metropolitan area including the unincorporated county areas adjacent to the Cities of Sacramento, Citrus Heights, Elk Grove, Rancho Cordova, and Folsom. The SRWWTP provides secondary treatment using an activated sludge process. Incoming wastewater flows through mechanical bar screens through a primary sedimentation process, which allows most of the heavy organic solids to settle to the bottom of the tanks. The solids are later delivered to the digesters. Next, oxygen is added to the wastewater to grow naturally occurring microscopic organisms, which consume the organic particles in the wastewater. The organisms eventually settle on the bottom of the secondary clarifiers. Clean water pours off the top of these clarifiers and is chlorinated, removing any pathogens or other harmful organisms that may still exist. Chlorine disinfection occurs while the wastewater travels through a two mile outfall pipeline to the Sacramento River, near the town of Freeport, California. Before entering the river, sulfur dioxide is added to neutralize the chlorine. The design of the SRWWTP and collection system was balanced to have SRWWTP facilities accommodate some of the wet weather flows while minimizing idle SRWWTP facilities during dry weather. The SRWWTP was designed to accommodate some wet weather flows while the storage basins and interceptors were designed to accommodate the remaining wet weather flows.

The SRWWTP has a design and permitted average dry weather flow of 181 MGD. In 2000, the SRWTP received and treated an average of 155 MGD and was projected to increase and surpass the 181 MGD capacity by 2007. Accordingly, the Sacramento Regional Wastewater Treatment Plant 2020 Master Plan was prepared in order to provide for the expansion of the SRWWTP to 218 MGD based on growth rates expected to be achieved in the Sacramento County region, and provide a phased program of recommended wastewater treatment facilities and management programs to accommodate the planned growth and to meet existing and anticipated regulatory requirements through the year 2020. It should be noted that flows to the SRWWTP have decreased due to water conservation efforts over the last 10 years, and the State

mandated water conservation efforts are expected to continue to further reduce the amount of wastewater in the future. In addition, the SRCSD has prioritized increasing water recycling in the region as an element to support the comprehensive effort to promote water supply reliability and Delta sustainability. Therefore, the SRCSD has determined the SRWWTP can provide capacity to future development beyond what was originally anticipated. Approximately 40 MGD of capacity is available at the SRWWTP.

Response to Comment 9-6

In response to the comment and for clarification purposes, the second paragraph under Wastewater Collection and Treatment, Sacramento Regional Wastewater Treatment Plant, on page 5.12-11, of the Draft EIR has been revised as follows:

The discharge permit adopted for the SRWWTP in ~~2000~~2010 contained ~~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 SRCSD. 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 more restrictive treatment levels over the then-current levels.~~ The SRCSD believed that many of the new conditions of the permit went beyond what is reasonable and necessary to protect the environment, and appealed the permit decision to the State Water Resources Control Board. In 2012, the State Water Resources Control Board upheld the permit. It should be noted that while waiting for a decision on the permit appeal, the SRCSD filed a lawsuit in Sacramento Superior Court in December 2011 seeking resolution on the permit matter. In April 2013, a partial settlement of the litigation was reached; however, the SRCSD has since dropped its lawsuit against the SWRCB's permit conditions.

On October 4, 2013, the Regional Water Board adopted an amendment to SRCSD's 2010 discharge permit that would result in more favorable conditions for SRCSD and its ratepayers as the SRCSD implements the required large-scale plant upgrades, which is now known as the EchoWater Project. The amendment results from the partial settlement reached between the SRCSD and the State and Regional Water Boards earlier in 2013. The EchoWater Project involves large-scale plant upgrades, including new tertiary treatment processes for the removal of ammonia and nitrate and enhanced filtration and disinfection. The upgrades are intended to improve water quality in the Sacramento River and help alleviate ecological problems in the Delta.

The above change corrects text and does not alter any of the conclusions contained within the Draft EIR.

Response to Comment 9-7

The fifth paragraph on page 5.12-11, of the Draft EIR, states, "The facility's current ADWF is approximately 165 mgd, with a permitted capacity of 181 mgd for ADWF."

Letter 10



FIRE DEPARTMENT
"An All-Risk Organization"

Forrest Adams
FIRE CHIEF

CITY OF SACRAMENTO
CALIFORNIA

5770 FREEPORT BL
SUITE 200
SACRAMENTO, CA
95822-3516

PH 916-808-1300
FAX 916-808-1677

TRANSMITTAL

DATE: September 11, 2012

ATTN: Dana Allen, Associate Planner

FROM: King Tunson, 808-1358
Fire Department

SUBJECT: **Notice of Availability-Draft Environmental Impact Report for Aspen 1-New Brighton Project**

- 10-1 1. Public Services- Project Specific Impacts and Mitigation Measures: Based on service criteria, the Aspen 1 Development will increase current fire department service levels which will impact response times. Therefore, Aspen 1 Development will be required to pay a fair share contribution for improved fire protection services either to reopen Station 99 (Reserve Station 9) which is located south of the project or to replace Station 60.

LETTER 10: KING TUNSON, CITY OF SACRAMENTO FIRE DEPARTMENT

Response to Comment 10-1

The comment states that the project will increase demand for fire services, which could affect response times.

The project includes annexation of 34 acres. The Local Agency Formation Commission (LAFCo) is a Responsible Agency for the project, and its responsibility includes review of the project to ensure adequate service levels as they relate to areas proposed for annexation.

The portion of the project within City limits is consistent with the 2030 General Plan land use designation for the site. The Master EIR for the 2030 General Plan, certified in March 2009, considered impacts on urban services, including fire and emergency services, and concluded that the cumulative effect of development that would be consistent with the general plan would be less than significant. The Draft EIR referenced this conclusion, and identified several policies within the 2030 General Plan that would ensure that the project would contribute, along with other development, its fair share of the cost of providing services required by new development. See Draft EIR, Impact 5.9-2, page 5.9-19, 20, and references to general plan policies PHS 2.1.11 (payment of development impact fee) and PHS 2.2.3 and 2.2.4 (review of project design and fire safety by the Fire Department).

The comment confirms the policies of the City with regard to the required contribution of projects to cumulative effects. The comment does not identify any project-specific effect not considered and evaluated in the Master EIR.

Letter 11



Post Office Box 1526 • Sacramento, CA • 95812 • (916) 444-0022

via Electronic Mail

Dana Allen, Associate Planner
City of Sacramento
Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

**Re: Aspen 1 – New Brighton Draft Environmental Impact Report,
Project Number P09-038/M09-032**

Dear M. Allen:

11-1

These comments are submitted on behalf of the Environmental Council of Sacramento (ECOS) on the Aspen 1 – New Brighton Draft Environmental Impact Report (DEIR), dated July, 2012. ECOS is a coalition of environmental and civic organizations with a combined membership of more than 12,000 citizens throughout the Sacramento Region. Our mission is to achieve regional and community sustainability and a healthy environment for existing and future residents.

ECOS is generally supportive of the subject proposed development. However, we do have a few issues that we believe were not adequately addressed in the environmental document and they will be discussed below.

LAND USE

11-2

The proposed development is consistent with the City General Plan and with the County General Plan Jackson Highway Expansion Area to the east. However, ECOS believes it would have been preferable if the County planning effort for the Jackson Highway Expansion Area would have been completed and approved before this project was advanced for approval to ensure consistency.

11-3

The proposed land uses and their distribution appear acceptable, although ECOS would perhaps have preferred to see somewhat higher densities in the central portion of the project. ECOS is very supportive of the urban agriculture component of the project, since supporting locally grown food is one of ECOS's sustainability objectives.

11-4

ECOS believes that a phasing plan is essential for the appropriate development of this project and should be included as a mitigation measure. Due to the existence of the sand and gravel materials conveyor, and its potential continued use for some years in the future, it is likely that a substantial portion of the property may not be developed for a considerable time period.

11-5

ECOS is concerned that the corner commercial site may be developed without any residential component, thereby negating any jobs / housing balance benefits attributable to the project, as well as any vehicle miles travelled (VMT) reduction benefit that could result from the concurrent development of the commercial and residential portions of the property.

www.ecosacramento.net

Letter 11 cont

HOUSING

11-6

The project is within the new growth area of the City of Sacramento, within which residential development must include a percentage of housing units affordable to very low income households (10% of units) and low income households (5% of units), to be developed concurrently to and in the same manner as market rate units. This is a crucial component of the project development in ensure that residents at all income levels have access to a variety of housing choices at a variety of price ranges throughout the City. As mentioned below, transit oriented development is preferable.

TRANSPORTATION

11-7

Transportation options, including access to public transit, are essential for communities to thrive in a sustainable manner. Additionally, lower-income people (including people with disabilities, seniors and youth) are less likely to have access to private automobiles than the average population, and thus more likely to be dependent on public transit. The project does not include transit within the project area, and the nearest Light Rail connection is 0.8 to 1.1 miles away. Additionally, no sidewalk access is currently available between the project site and Light Rail, creating an additional hurdle to access transit. We agree with Mitigation Measure 5.10-8, that the applicant should work with Regional Transit to provide transit facilities to serve the project area. However, given Regional Transit's funding constraints, the ability of Regional Transit to provide sufficient service to this project and the remaining Teichert properties to the East, is highly unlikely.

11-8

A Master Plan for the entirety of the Teichert properties previously depicted an internal shuttle/trolley system connecting to Light Rail. ECOS believes this shuttle/trolley system is an essential component of the project. In order to accommodate all feasible mitigation, an additional mitigation measure must be added to include the establishment of a Transportation Services District (assessment district) to provide funding for this Master Plan Area encompassing shuttle/trolley service and other transportation demand management services, similar to what is currently provided in North Natomas in the City and through County Service area 10 in the County.

ECOS cannot support this project without this critical sustainability component. If a shuttle/trolley system is an integral part of this project and future extensions of this project to the east, it will not only address and mitigate transportation impacts, but air quality and climate change impacts as well

CLIMATE CHANGE

11-9

ECOS review of climate change for this project will be abbreviated. ECOS requests that all new development scheduled for this project be at least 15% more efficient than the State energy code (Title 24, Part 6) requires. Reasoning includes:

- PG&E has performed a cost effectiveness study¹ for the SMUD/PG&E service territory indicating that being 15% more efficient than the 2010 Title 24 standards is cost effective

¹ PG&E Codes and Standards; Title 24 Energy-Efficient Local Ordinances; Title: Climate Zone 12 Energy Cost-Effectiveness Study (SMUD Electricity & PG&E Gas Rates); Feb 7, 2011

Letter 11 cont

11-9
Con't

If 2013 Title 24 standards are used for permitting (these will probably take effect 1/1/14), then a 5% improvement would be satisfactory until a cost effectiveness study has been developed by a credible authority (e.g. PG&E)

- Over 40 local jurisdictions in California understand that improving upon Title 24 is cost effective and smart business for their long-term welfare and have requested permission from the California Energy Commission (CEC) to enforce stricter than State code requirements. After review of necessary cost-effectiveness studies, the CEC has approved all justified requests.
- The Aspen DEIR states in several places that improved building codes are part of the strategy to meet AB32 goals. This is a measurable, verifiable, and enforceable mitigation measure that is not subject to the vagaries of General Plan Policies, PUD Guidelines, and still nascent efforts to quantify other types of GHG reductions

11-10

Per CEQA, feasible mitigation measures must be implemented when an impact is significant and unavoidable (PRC 21061.2, CEQA 15126.4). Chapter 4 discusses population of the Aspen project, but ECOS could not find an actual estimate of the residential or worker force population in the Chapter. Please include these estimated numbers. Per capita and per service personnel metrics are useful in developing GHG efficiency metrics and for comparing with other projects.

11-11

Appendix F, Table 13 claims a 36.7% GHG reduction from business as usual which are backed up by many pages of computer output; however there is no narrative discussing how the 36.7% is achieved, nor is there a GHG mitigation plan and associated MMRP. Please include a GHG mitigation plan and MMRP and an analyses that can be followed by a knowledgeable person.

11-12

Please include the following in the GHG analysis the years analyzed, (e.g. 2020 and 2030) and what percentage of the 36.7% savings (Appendix F, Table 13, Page 39) are due to State regulations and City policies, respectively. Table 13 also indicates that transportation related GHG's are roughly 75% of BAU total emissions (18,237.4 of 24,261.8) and 60% of mitigated emissions (9,464.0 of 15,261.3). These transportation related GHG numbers are high compared to other projects. Please discuss whether those projections are due to the fact that the project is 90% residential and 10% commercial and therefore commute VMT is high and/or other reasons.

BIOLOGICAL RESOURCES

11-13

Nesting Habitat for Tri-Colored Blackbird: The justification given for not mitigating for nesting habitat for tri-colored blackbirds is that the suitable nesting habitat along the industrial ponds (namely, but not exclusively, the Himalayan blackberry patches) was routinely cut back such that it was not of an adequate volume to accommodate a nesting colony. The logic of this justification appears flawed given that the "potential" for nesting always existed if the blackberry patches were not drastically pruned back.

Tri-colored blackbirds tend to periodically shift the location of their nesting colonies. Given the close proximity of the neighbor's nesting colony, the potential for them to shift their nesting location onto the project site if the blackberry patches were allowed to grow would be "high." The ongoing pruning of those blackberry patches was the reason that this could not occur. We would argue that there has been suitable nesting habitat on the project site and that it was only the ongoing activity of drastic pruning that inhibited occupancy of that habitat. As such, mitigation should be required for the loss of this nesting habitat.

Letter 11 cont

11-14

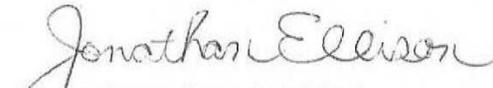
Sanford's Arrowhead: "Surveys for these plants were conducted in the only potential habitat – the wetland fringes of the industrial washwater retention ponds at the proposed project site (Chapter 5.2 -27)." Regarding Sanford's Arrowhead, Dr. Glen Holstein at the California Native Plant Society was consulted and he stated that: "I have personally seen it in Sacramento County at the edge of an artificial pond and in an artificial drainage channel, and in the new edition of the Jepson Manual, the standard reference on California plants, its only habitat is listed as 'ponds, ditches'." Given that only the margins of the ponds were surveyed, it can only be concluded that the surveys were not complete as they did include the ditches and the drainage canal at the project site. A complete survey of all potential habitat for the Sanford's Arrowhead needs to be undertaken to ensure that it is not extant on the project site.

11-15

CONCLUSION

In closing, the Environmental Council of Sacramento has some concerns regarding the adequacy of the DEIR. Several impacts were not adequately addressed under CEQA and warrant further analysis. If you wish to discuss any of these issues and concerns, please contact Sean Wirth (Biological Resources) wirthsoscranes@yahoo.com , Keith Roberts (Climate Change) keitheroberts@aol.com , Kendra Bridges (Housing) kendra@sachousingalliance.org or Ron Maertz (Land Use and Transportation) ronmaertz@sbcglobal.net .

Yours very truly,


Jonathan Ellison, President
Board of Directors

www.ecosacramento.net

LETTER 11: JONATHAN ELLISON, ENVIRONMENTAL COUNCIL OF SACRAMENTO

Response to Comment 11-1

The comment is an introductory statement and provides an overview of the commenter's concern regarding the adequacy of the Draft EIR.

Response to Comment 11-2

Comment noted. Other applicant-owned properties are within a different jurisdiction than the City of Sacramento, and Master Planning activities are required to be conducted under the purview of Sacramento County.

Response to Comment 11-3

The commenter's satisfaction with the project's land uses and distributions, as well as the urban agriculture component has been noted and will be forwarded to the City's decision-makers. The preferred density by the commenter does not address the adequacy of the Draft EIR, but will be forwarded to the City's decision-makers for their consideration. In addition, an Increased Density Alternative was considered but dismissed (see page 8-5 of the Draft EIR) because it would not be expected to reduce significant impacts compared to the proposed project.

Response to Comment 11-4

The commenter's request for a phasing plan as mitigation is not required. The Draft EIR contains analysis and mitigation measures that incorporate phasing as the project is being built out, as seen in Mitigation Measures 5.7-3(a) through (e), on pages 5.7-29 and 5.7-30, Chapter 7, Noise and Vibration. The mitigation incorporates the potential for development to proceed in a phased manner.

Response to Comment 11-5

The Draft EIR addresses potential build out of the project, including the corner commercial site. Page 3-12 of Chapter 3, Project Description, discusses the potential to develop residential units on the corner commercial designated land, as seen below:

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.

It should be noted that CEQA requires analysis of the project as a whole. Section 15003(h) of the CEQA Guidelines states, "The lead agency must consider the whole of an action, not simplify its constituent parts, when determining whether it will have a significant environmental effect." The Draft EIR analyzes the environmental impacts of the project as a whole, and has been written in conjunction with the CEQA guidelines.

Response to Comment 11-6

The comment does not address the adequacy of the Draft EIR. However, as stated in the fifth paragraph on page 4-29, Chapter 4 Land Use, Population, and Housing, of the Draft EIR, the applicant is in the process of preparing an Inclusionary Housing Plan, per the City's Mixed-Income Housing Ordinance.

Response to Comment 11-7

As stated on page 5.10-56, of the Draft EIR, Regional Transit (RT) is working with Sacramento County to develop a long-range plan to provide Bus Rapid Transit (BRT) along South Watt Avenue and Jackson Road. Regional Transit's adopted Short Range Transit Plan (December 2012) shows planned bus service to South Watt Avenue and Jackson Road. However, the proposed project does not include public transit services or amenities, resulting in a potentially significant impact. Mitigation Measure 5.10-8, on page 5.10-59, of the Draft EIR, states that the project applicant shall work with RT to provide transit facilities for the project area along Jackson Road and/or South Watt Avenue. Implementation of Mitigation Measure 5.10-8 would result in a less-than-significant impact. The commenter's concern regarding RT's funding constraints will be forwarded to the City's decision-makers for their consideration. In addition, the provision of transit service to other easterly properties in the County of Sacramento is beyond the scope of this project's EIR

Response to Comment 11-8

As stated in Response to Comment 11-7 above, the proposed project does not include public transit services or amenities, resulting in a potentially significant impact. The commenter's request for the inclusion of a shuttle/trolley is not required to reduce the impact to a less-than-significant level, and would be considered a project amenity. The commenter's request will be forwarded to the project applicant for their consideration.

Response to Comment 11-9

The Draft EIR addresses impacts related to GHG emissions in Chapter 5.1. As stated on page 5.1-28 of the Draft EIR, Mitigation Measure 5.1-5, on pages 5.1-28 and 5.1-29, requires compliance with the project's Air Quality Mitigation Plan (AQMP), which includes a list of project design features that would reduce the project's emissions including GHG emissions (See Appendix B of Appendix F of the Draft EIR). The features include, in addition to others, the following:

- Prohibition of fireplaces and wood stoves;
- Incorporation of walkable communities; and
- Inclusion of traffic calming measures

It should be noted that the project is not required to exceed Title 24 standards. The Draft EIR concluded that a less-than-significant impact would occur as a result of implementation of the project. Therefore, the commenter's suggestion that the project should be at least 15 percent more efficient than Title 24 standards would not be required or necessary.

Response to Comment 11-10

As stated in the last two paragraphs under Consistency with the Sacramento Housing Element on page 4-32 in Chapter 4, Land Use, Population, and Housing, of the Draft EIR, the proposed project is consistent with policies H-1.3.2 and H-1.3.4. In addition, the project consists of the development of 482 low density residential, 378 high density residential, and 405 residential mixed use units, which would be within the allowable densities of the land use designations for the project site. Consequently, the proposed project's population generation, which is estimated based on an average household size of 2.54 persons per household to be approximately 3,467 people (1,365 units x 2.54), would be within the maximum and minimum population anticipated for the project site in the 2030 General Plan,

Response to Comment 11-11

As seen in the sixth paragraph and Table 5.1-12 on pages 5.1-35 and 5.1-36, of the Draft EIR, the 36.7 percent reduction in GHG emissions from business as usual conditions using project design features is presented. Appendix B of Appendix F of the Draft EIR contains the Air Quality Mitigation Plan (AQMP) and detailed calculations requested by the commenter for the above-mentioned GHG reduction. It should also be noted that a Mitigation Monitoring and Reporting Program (MMRP) will be adopted by the City during public hearings.

Response to Comment 11-12

For the year 2020, of the 36.7 percent reduction in GHGs due to mitigation, 20.8 percent results from State regulations (Pavley and the Low Carbon Fuel Standard), and the remaining 16.1 percent from a combination of City policies and project design characteristics. For the year 2030, of the 43.8 percent reduction in GHGs due to mitigation, 28.2 percent results from State regulations, and the remaining 15.6 percent from a combination of City policies and project design standards.

The commenter also expressed concern about the high percentage of the project's transportation GHGs (75 percent of "Business as Usual" GHGs and 60 percent of "With Project Design" GHGs are due to transportation). These percentages are not unusual for land use projects of this type. The composition of this project as 90 percent residential and 10 percent commercial generates commute trips that contribute to these percentages. Also contributing to these percentages are stringent building energy-efficiency standards that minimize building energy use. These green building standards lower the relative GHG contribution from buildings as compared to vehicles.

Response to Comment 11-13

CEQA requires analysis of the proposed project as compared to the existing setting. Because the existing setting of the project site is disturbed and the maintained areas do not serve as suitable nesting habitat for the Tricolored Blackbird, mitigation for loss of nesting habitat would not be required. The second paragraph, on page 5.2-26, of the Draft EIR, explains how tricolored blackbirds were not observed on the site during site reconnaissance, and that routine vegetation maintenance on-site provides marginal conditions to support nesting for the species.

Response to Comment 11-14

Gibson & Skordal, LLC, performed a rare plant survey within the Aspen 1 study area on March 24, April 21, May 21, June 11, June 30, and July 1, 2009, during which all ditches, pond fringes and drying beds were inspected for the presence of Sanford's arrowhead. The ponds and immediately adjacent ditch reaches maintained prolonged water levels, unlike most of the drying beds and the majority of ditches which possessed an ephemeral hydrology. Some of the drying beds contained several inches of water at the time of field surveys, but the majority were devoid of vegetation (those that supported vegetation were surveyed). The lack of vegetation was likely due to the routine deposition of fine sediments which are a byproduct of Teichert's aggregate washing process.

The ditch paralleling the western edge of the project site was dry during all site visits and supported mostly ruderal upland plant species. The portions of the ditches not immediately adjacent to the ponds in the northern half of the property displayed varying water levels dependent upon the controlled water deliveries associated with aggregate mining. Vegetation within the channels was mostly sparse, and thick layers of the aforementioned fine sediments were present.

In summary, all aquatic features were evaluated and inspected for the presence of Sanford's arrowhead during multiple site visits and specimens were not observed.

Response to Comment 11-15

The comment is a closing statement and provides contact information for ECOS for further discussion of the commenter's concerns. All commenter's concerns regarding the adequacy of the Draft EIR have been addressed in the above response to comments.

Letter 12

Florin Perkins Public Disposal Site
4201 Florin Perkins Road
Sacramento, CA 95826
Phone: 916.443.5120
Fax: 916.386.8715
Website: www.zankerrecycling.com



September 14, 2012

VIA E-MAIL (dallen@cityofsacramento.org) & U.S. MAIL

Dana Allen, Associate Planner
City of Sacramento
Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811

RE: **Response to Notice of Availability-Draft Environmental Impact Report for the Aspen 1 – New Brighton Project**

Dear Ms. Allen:

The following response is submitted to the Notice of Availability-Draft Environmental Impact Report (EIR) for the Aspen 1 – New Brighton Project by Zanker Road Resource Management, Ltd., operators of the Florin Perkins Public Disposal Site Material Recovery Facility and Large Volume Transfer Station, located at 4201 Florin Perkins Road, Sacramento, California.

12-1

The Notice of Availability of a Draft 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.

12-2

Surrounding Land Uses. The draft EIR does not consistently acknowledge the existence of the current Florin Perkins Public Disposal Site Material Recovery Facility and Large Volume Transfer Station (Florin Perkins Facility) located just west of the proposed New Brighton Project. The proper description of surrounding land uses should be consistent throughout the EIR in order to address potential impacts properly.

12-3

Traffic Impacts. It appears that the proposed project will increase traffic on local streets significantly. This would impact local businesses by increasing customer, vendor and hauler travel times resulting in increased expenses and potential loss of customers.

12-4

Structural Development and Occupant Safety. The proposed project will be bordered by an existing landfilling operation to the south and a former landfill to the west. Development of structures located near these landfills must take into consideration potential landfill gas migration and should be designed with appropriate monitoring systems. Underground infrastructure and buildings should also be designed to eliminate the possible accumulation of landfill gases that can pose a safety hazard. In addition, all structures should require explosive gas alarms and signage notifying occupants of potential hazards.

Sincerely,

A handwritten signature in blue ink, appearing to read "Abel Pereira".

Abel Pereira
Zanker Road Resource Management, Ltd.

LETTER 12: ABEL PEREIRA, ZANKER ROAD RESOURCE MANAGEMENT, LTD.

Response to Comment 12-1

The comment is an informative introductory statement regarding the Draft EIR and proposed elements of the project. The comment does not address the adequacy of the Draft EIR.

Response to Comment 12-2

For clarification purposes, the bottom paragraph on page 3-1 of the Project Description Chapter of the Draft EIR is hereby revised as follows:

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), which is now operating as a materials recovery/large volume transfer station. 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.

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

Response to Comment 12-3

Traffic impacts along local streets near the proposed project site have been analyzed in Impact 5.10-2, on page 5.10-51, of the Draft EIR. The impact discussion acknowledges the anticipation of increased traffic along South Watt Avenue, from Jackson Road to Fruitridge Road, and concludes a significant impact. However, Mitigation Measure 5.10-2, on page 5.10-51, of the Draft EIR, would reduce the impact to a less-than-significant level.

The commenter's concern regarding economic impacts, such as the loss of customers and increased expenses to local businesses from increased traffic from the proposed project is noted. The commenter's concern will be forwarded to the City's decision-makers for their consideration. It should be noted that CEQA requires analysis of a project's impacts on the physical environment, such as traffic described above. Economic concerns as expressed by the commenter are not required to be addressed in an EIR, because economic impacts do not directly affect the physical environment.

Response to Comment 12-4

Please see Response to Comment 6-4 above.

Letter 13

ROBERT & MONICA MALDONADO

7704 WILLOW POINT WAY
SACRAMENTO, CA 95831
916 395-9242 HOME

September 12, 2012

CITY OF SACRAMENTO
COMMUNITY DEVELOPMENT DEPARTMENT
THIRD FLOOR
ATTN: TOM BUFORD, SENIOR PLANNER
300 RICHARDS BOULEVARD
SACRAMENTO, CA 95811

REFERENCE: NOTICE OF AVAILABILITY, DRAFT ENVIRONMENTAL IMPACT REPORT,
THE ASPEN 1-NEW BRIGHTON PROJECT

Dear Mr. Buford:

We want to thank you for the meeting we had with you and your staff on September 6, 2012. The meeting was very cordial and provided us with important information regarding concerns we had about the reference project above, and it's effects on our property.

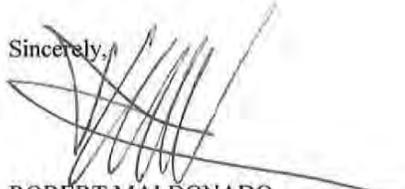
We would also be concerned about any costs that we would possibly incur and any proposed use of our property related to this project.

As the project moves along, we hope we can contact your office for any questions. We have been in contact with the Teichert Land Company staff, and they have been very helpful, cooperative, and have shared project information with us.

We have included a copy of the EIR response dated September 12, 2012, which we forwarded to Ms. Allen.

Once again, Thank You!

Sincerely,



ROBERT MALDONADO

1 Enclosure-as

13-1

Letter 13 cont

ROBERT & MONICA MALDONADO

7704 WILLOW POINT WAY
SACRAMENTO, CA 95831
916 395-9242 HOME

September 12, 2012

CITY OF SACRAMENTO
COMMUNITY DEVELOPMENT DEPARTMENT
THIRD FLOOR
ATTN: DANA, ALLEN, ASSOCIATE PLANNER
300 RICHARDS BOULEVARD
SACRAMENTO, CA 95811

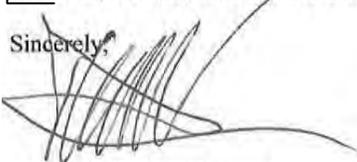
REFERENCE: NOTICE OF AVAILABILITY, DRAFT ENVIRONMENTAL IMPACT REPORT,
THE ASPEN 1-NEW BRIGHTON PROJECT

Dear Ms. Allen:

In regards to the reference project above and our property at 8770/8780 Jackson , Sacramento, California 95826, we have the following concerns:

- 13-2 1. Water Tables: That enough built up of grade level be done in previously excavated area which might impact the water tables.
- 13-3 2. Dust and Noise: That dust and noise be addressed prior to any approvals of the project . This includes the existing sand and gravel plant and conveyer as well as any on going site work.
- 13-4 3. Cell Tower Existence: We would want to be sure that all future home and business buyers are fully aware of the existing conditions at 8770 and 8780 Jackson Road. The primary concern is the cell tower that has been on the property for about twenty years. In addition, a long term lease remains in effect.
- 13-5 4. Sidewalks and Driveways: We wish to be included in the planning of the sidewalks and driveways in front of each parcel (8770/8780). We want to provide input as to where the driveways are located.
- 13-6 5. Water/Sewer Hook-ups: It would be beneficial if hook-up's would be available to us on the existing Jackson roadway. While water and sewer does not currently exist on Jackson Road, a gas line is present.
- 13-7 The notice for the EIR dated August 31, 2012, indicated the comment period ended August 31, 2012. However, we were told that the comment period had been extended to September 14, 2012.

Sincerely,



ROBERT MALDONADO

LETTER 13: ROBERT AND MONICA MALDONADO

Response to Comment 13-1

Comment 13-1 is an introductory statement and does not address the adequacy of the Draft EIR. The commenter's concern regarding costs associated with the project will be forwarded to the City of Sacramento Community Development Department.

Response to Comment 13-2

According to the applicant's engineer, groundwater within the vicinity of the project site is reported to occur at approximately 75-feet below ground surface (bgs), according to published regional groundwater maps (County of Sacramento, 2003), and has been shown to be found at an average depth of 50-60-feet bgs based upon historical groundwater table measurements of three on-site groundwater monitoring wells. Due to the large size and variation in ground surface elevations across the property, groundwater elevations will vary throughout the site. The lowest existing ground elevations of the site will be modified during grading operations to raise areas of low existing ground elevations to 21 to 47 feet above the highest groundwater table elevation. Utility trenches will generally be 5 feet to 16 feet deep, which is 10 to 20 feet above the highest groundwater table elevation. Utility construction and site grading for the project will not require disturbance to the existing water table, thus no impacts are anticipated.

Response to Comment 13-3

The presence of dust due to project construction activity has been addressed in Chapter 5.1, Air Quality and Climate Change, of the Draft EIR. The reduction of dust generated by the project is implemented within Mitigation Measure 5.1-1(a) on pages 5.1-23 and 5.1-24, and would result in a less-than-significant impact. Noise has been addressed in Chapter 5.7, Noise and Vibration, of the Draft EIR. Mitigations to reduce noise levels produced by existing and future noise sources including the sand and gravel plant, ongoing site work, and the conveyor belt are presented under Impact Statement 5.7.3 of Chapter 5.7, Noise and Vibration, of the Draft EIR. Mitigation Measures 5.7-3(a) through (e) on pages 5.7-29 through 5.7-30 specify procedures that would reduce the impact of increased noise levels associated with the combination of existing noise sources and project implementation. It should be noted that even with implementation of the aforementioned mitigation measures, impacts related to noise from existing sources in the project area were determined to be significant and unavoidable.

Response to Comment 13-4

The cell tower is an existing condition of the site. Therefore, the tower would be clearly visible to all visitors to the site. As such, all future home and business buyers would be fully aware of the existence of the cell tower upon visitation to the project site.

Response to Comment 13-5

The comment will be forwarded to the City Community Development Department. The comment does not address the adequacy of the Draft EIR.

Response to Comment 13-6

As stated on page 5.12-24 in Chapter 5.12, Utilities, Service Systems, and Energy, of the Draft EIR, three options exist for connecting the project to the City's water supply, including Option #3, which entails construction of a water main within Jackson Highway. The commenter's preference for both water and sewer hookups on Jackson Highway will be forwarded to the City Community Development Department.

Response to Comment 13-7

The comment relates to the close of the comment period and does not address the adequacy of the Draft EIR.

Letter 14

September 14, 2012

Dana Allen, Associate Planner
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Boulevard, Third Floor
Sacramento, California 95811

Re: Draft Environmental Impact Report for the Aspen 1—New Brighton
Project (P09-038/M09-032, SCH # 2010072058)

Dear Ms. Allen:

14-1 As you are aware, Taylor & Wiley represents Stonebridge Properties, LLC (“Stonebridge”), the applicant for the above-referenced project (“Project”). We have reviewed the Draft Environmental Impact Report (DEIR) for the Project. Based on that review, we offer the following comments:

Cover Page

14-2 Project Applicant. Please note that the correct phone number for Stonebridge is 916-484-3200.

Chapter 1. Introduction and Scope of the EIR

Page 1-1, Section 1.2, Project Description, First paragraph. The description of parcels created by the tentative map should include a reference to open space as well.

14-3 Page 1-2, Section 1.2, Project Description, First paragraph. Under the annexation request there should also be a description of the PUC modification of service area territory as it relates to California American Water Company.

Pages 1-2 and 1-3, Section 1.5. The Final Master EIR for the 2030 General Plan was certified in March 2009. Therefore, the reference to the *Draft* Master EIR for the 2030 General Plan should be changed to *Final* Master EIR.

Page 1-10, Section 1.11, Organization of the Draft EIR, Chapter 6 – Reorganization. The PUC modification of California American Water Company Service territory should be mentioned here.

Ms. Dana Allen
September 14, 2012
Page 2

Letter 14 cont

Chapter 2. Executive Summary

- 14-4 Page 2-2, Paragraph 5. Correct the reference to detachment from California American Water Company to a PUC modification of service territory.

Chapter 3. Project Description

- 14-5 Page 3-1, Section 3.2, Project Setting and Surrounding Land Uses, Paragraph 2. A reference should be made to the existing Material Recovery/Large Volume Transfer Station (MRF) at the former Florin Perkins Landfill.

- 14-6 Page 3-13, Section 3.5, Project Components, Infrastructure, Wastewater, Paragraph 1. Based upon the proximity of water transmission lines from California American Water Company, the off-site water analysis should include an Option #4 of connecting water mains up South Watt Avenue to existing California American Water Company facilities.

Page 3-15, Section 3.5, Project Components, Figure 3.8. Based upon the proximity of water transmission lines from California American Water Company, the off-site water analysis should include an Option #4 of connecting water mains up South Watt Avenue to existing California American Water Company facilities.

- 14-7 Pages 3-17 and 3-19, Required Public Approvals. The list of City approvals should also include the establishment of a Special Planning District (SPD) for the Project. In addition, the necessary Sacramento County approvals for the proposed offsite drainage, water, and sewer improvements depicted in Figures 3-10, 5.2-2, 5.6-3, 5.6-11, 5.12-3, and 5.12-4 should be listed here. Also, necessary Sacramento County and Federal Emergency Management Agency (FEMA) approvals for removing the project site from the Special Flood Hazards Area (SHFA), if necessary, as discussed on pages 5.6-34 to 5.6-36 of the DEIR.

- 14-8 Page 3-23, Section 3.5, Project Components, Reorganization, Paragraph 1. The PUC modification of California American Water Company Service territory should be mentioned here.

Chapter 5.1. Air Quality and Climate Change

- 14-9 Pages 5.1-27 to 5.1-28, Impact 5.1-5. In the first sentence of the third paragraph on page 5.1-28, the DEIR states that design features would reduce NOx emissions below the threshold of 65 pounds per day (ppd), which implies that unmitigated NOx emissions would exceed that threshold. However, as shown in Tables 5.1-7 and 5.1-8 on the preceding page, unmitigated NOx emissions associated with the Project would not exceed the 65-ppd threshold with or without the proposed elementary school. Moreover, the mitigated emissions presented in Tables 5.1-7 and 5.1-8 do not reflect the estimated 38.3 percent reduction in ROG and NOx associated with

Ms. Dana Allen
September 14, 2012
Page 3

14-9
Con't implementation of the Project's design features, as outlined in the Project's Air Quality Mitigation Plan (AQMP).

14-10 Pages 5.1-29 to 5.1-32, Impact 5.1-7. The DEIR should note that four of the 13 Perkins Plant odor complaints received by the SMAQMD during the three-year period of 2008 through 2010 reflect multiple complaints received on the same day. In fact, six of the complaints occurred within the span of a single week in September 2008 and ten of the complaints occurred during the fall of 2008. The source of these complaints has since been rectified by Teichert, as evidenced by the fact that no Perkins Plant odor complaints were received by SMAQMD for the entire 2010 calendar year. Also, the DEIR should describe the Florin-Perkins Landfill's existing permit conditions that restrict the receipt of odor-causing materials at the Materials Recovery Facility (MRF) at that site. For the above reasons, the DEIR's conclusion that odor impacts would be significant and unavoidable should be reassessed.

Chapter 5.2. Biological Resources

14-11 Page 5.2-15, Protected Trees. The DEIR mentions the City's criteria for heritage and/or protected trees, but does not discuss what those criteria are.

14-12 Page 5.2-25, Second Paragraph. The second series of wet season surveys for listed vernal pool crustaceans were conducted between December 2010 and April 2011. No listed vernal pool crustaceans were observed during these surveys. The results of these surveys are summarized in the attached report from Gibson & Skordal, LLC, dated May 2011.

14-13 Page 5.2-29, Clean Water Act Section 404. The DEIR should also note that the United States Army Corps of Engineers (USACE) typically does not consider to be jurisdictional ditches that were excavated in uplands and do not carry a relatively permanent flow of water. (U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* and *Carabell v. United States*," December 2, 2008.)

14-14 Page 5.2-33, Sacramento County General Plan. The County General Plan policies referenced here appear to be from the prior County General Plan, not the current County General Plan that was adopted in November 2011. Therefore, the DEIR discussion of relevant County General Plan policies should be revised to reflect the current adopted County General Plan.

14-15 Page 5.2-38, Impacts to Wetlands and Other Waters of the United States. Regarding the four offsite drainage ditches discussed in the first paragraph, please see our previous comment above regarding page 5.2-29 of the DEIR. Therefore, the first paragraph of this discussion should note that two of the three *ponds and all four offsite drainage ditches* are part of the active, ongoing operations and thus are not considered to be "waters of the United States" by the USACE.

Ms. Dana Allen
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Letter 14 cont

14-16 Page 5.2-40, Second Paragraph. Please see our prior comments on page 5.2-25 of the DEIR regarding vernal pool surveys.

14-17 Pages 5.2-45 and 5.2-46, Impact 5.2-11. The discussion of County General Plan policies pertaining to the removal of heritage and/or protected trees associated with off-site improvements within unincorporated Sacramento County references policies from the prior County General Plan. This discussion should be updated to reflect current policies contained in the County General Plan Conservation Element, as amended November 9, 2011.

14-18 Page 5.2-46, Mitigation Measure 5.2-11. This mitigation measure should be re-written to clarify that onsite impacts to protected trees within the City would be mitigated in accordance with City standards, while those occurring within the County would be mitigated in accordance with County standards. Also, as discussed above with respect to Impact 5.2-11, this measure references a policy from the prior County General Plan. The measure should be updated to reflect the relevant policy from the current County General Plan.

Chapter 5.3. Cultural Resources

14-19 Pages 5.3-5 to 5.3-6, Local Regulations. It may also be helpful to discuss any Sacramento County policies that relate to the proposed off-site improvements on lands located within unincorporated Sacramento County.

14-20 Page 5.3-8, Last Paragraph. The DEIR refers to a 232-acre study area for the cultural resource surveys. However, the DEIR should be revised to clarify that the cultural resources surveys conducted by SWCA Environmental Consultants and WAVE Consulting (Appendix H of the DEIR) covered both the 232-acre project site and approximately 136 acres associated with proposed offsite drainage improvements. (See DEIR Appendix H, page 1 and Figure 1.)

Chapter 5.6. Hydrology and Water Quality

14-21 Page 5.6-35, Mitigation Measure 5.6-4. The potential means for removing the project site from a SFHA, as listed in the discussion of Impact 5.6-5 on page 5.6-35, should also be listed in this mitigation measure.

Chapter 5.7. Noise and Vibration

14-22 Page 5.7-26, Mitigation Measure 5.7-2. This mitigation measure should reference the City's 45 Ldn interior noise standard for residential uses, as set forth in General Plan Policy EC 3.1.3 (page 5.7-20 of the DEIR) and discussed under Impact 5.7-2.

14-23 Pages 5.7-28 to 5.7-29, Impact 5.7-3. We disagree with the DEIR's conclusion that onsite noise impacts associated with existing operations at Teichert's Perkins Plant and the onsite aggregate conveyor cannot be mitigated to a less-than-significant level. As

Ms. Dana Allen
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Page 5

Letter 14 cont

14-23
Con't

↑ noted in the attached letter from Bollard Acoustical Consultants, Inc., the noise consultant who prepared the noise report for the Project, with relocation of the conveyor (Mitigation Measure 5.7-3(d)), implementation of the Perkins Plant source noise control measures (Mitigation Measure 4.7-3(b)), and construction of a noise barrier (Mitigation Measure 5.7-3(e)), noise levels can be reduced to comply with the City of Sacramento's noise standards. Therefore, the DEIR should be revised to reflect a less-than-significant impact after implementation of identified mitigation measures.

Chapter 5.10. Transportation and Circulation

14-24

General Comment. Please define the Project's fair share percentage for traffic mitigation measures that require a fair share contribution.

14-25

Page 5.10-1, Project Description. The statement that the project would include the realignment of 14th Avenue "in the northwestern portion of the site" is inconsistent with what is depicted on Figure 5.10-1, which shows the realignment occurring to the west of the Project site.

14-26

Page 5.10-5, Last Paragraph. The DEIR should be revised to note that the referenced update to the Sacramento County Bicycle Master Plan has been completed and was adopted in April 2011.

14-27

Page 5.10-7, Figure 5.10-4. As discussed above with respect to page 5.10-5 of the DEIR, the Sacramento County Bicycle Master Plan update was completed and adopted in April 2011. Therefore, this figure, which was based on a draft of the proposed Bicycle Master Plan dated January 2010, should if needed to reflect the adopted Bicycle Master Plan.

14-28

Page 5.10-25, Intersection Operations. The DEIR considers South Watt Avenue/Jackson Road a City intersection and applies a LOS D threshold. However, this intersection lies on the City/County boundary. In the State Route 16 Corridor Study (July 2012), a multi-jurisdictional effort that included both the City and the County, the County's LOS E threshold was applied at this location for the evaluation of future improvements.

14-29

Page 5.10-30, Method of Analysis. In the second paragraph of this discussion, the referenced to "the County's proposed 2030 General Plan Update" should be revised to reflect the fact that the County's 2030 General Plan was adopted in November 2011 and is thus no longer "proposed." The DEIR should explain the development assumptions and roadway configurations used for the cumulative traffic analysis, e.g., SACOG MTP land use and roadway network plus City General Plan and County Draft General Plan Update land use assumptions.

14-30

Page 5.10-51, Mitigation Measure 5.10-2. This mitigation measure requires the widening of South Watt Avenue from Jackson Road to Fruitridge Road to four travel lanes. Do the City and County own sufficient right-of-way along South Watt Avenue

↓

Ms. Dana Allen
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Letter 14 cont

14-30
Con't between Jackson Road and Fruitridge Road to accommodate the widening of this segment to four lanes?

14-31 Page 5.10-59, Mitigation Measure 5.10-8. This measure requires Stonebridge to “coordinate with Regional Transit to provide transit facilities to serve the project area along Jackson Road and/or South Watt Avenue.” Please define what potential facilities might be required to satisfy this measure.

14-32 Page 5.10-60, Mitigation Measure 5.10-11. Our previous comment concerning Mitigation Measure 5.10-2 also applies to Mitigation Measure 5.10-11.

14-33 Page 5.10-62, Mitigation Measure 5.10-17. Our prior comment concerning Mitigation Measure 5.10-8 also applies to Mitigation Measure 5.10-17.

14-34 Page 5.10-63, Method of Analysis. In the first paragraph, please see our prior comments concerning page 5.10-30 of the DEIR.

14-35 Page 5.10-64, Second Paragraph. The Sacramento County General Plan calls for a high capacity intersection at the Jackson Road/South Watt Avenue intersection, not the Folsom Boulevard/Jackson Road intersection.

14-36 Pages 5.10-72 to 5.10-92, Impact 5.10-20. For all facilities with impacts/mitigation measures that are located within areas with the City’s LOS F exemption, i.e., Folsom Boulevard, the DEIR should also note that LOS F may be acceptable if the Project provides other improvements to the citywide transportation system within the vicinity of the Project site.

14-37 Page 5.10-90, Mitigation Measure 5.10-20(a). The description of the high capacity intersection at South Watt Avenue/Jackson Road does not reflect the current planned configuration of this intersection, as outlined in the State Route 16 Corridor Study (July 2012) and endorsed by Sacramento County Department of Transportation.

14-38 Page 5.10-91, Mitigation Measure 5.10-20(d). The proposed mitigation is an eastbound right-turn overlap traffic signal phase for the movement from eastbound Folsom Boulevard to eastbound Jackson Road. This movement already operates with its own signal phase that is run concurrently with the northbound phase from Jackson Highway.

14-39 Pages 5.10-95 to 5.10-97, Impact 5.10-28. Please see our previous comment above concerning Impact 5.10-20.

14-40 Page 5.10-96, Mitigation Measure 5.10-28(a). Please see our previous comment above concerning Mitigation Measure 5.10-20(a).

14-41 Page 5.10-103, Fifth Paragraph. The suggested use of roundabouts (in lieu of all-way stops) could adversely affect the function and/or feasibility of the water quality and

Ms. Dana Allen
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Letter 14 cont

14-41
Con't

↑ drainage improvements proposed for the median of Rock Creek Parkway, as shown in Figures 5.6-5 and 5.6-7 of the DEIR.

Chapter 5.11. Urban Design and Visual Resources

14-42

Page 5.11-3, Third Paragraph. No mining currently occurs on the project site, but mining-related activities, such as an aggregate conveyor belt and drying beds, do occur onsite. Therefore, we suggest that the reference to “continued mining operations on-site” in the last sentence be changed to refer to “continued mining-related operations on-site.”

Chapter 5.12. Utilities, Service Systems, and Energy

14-43

Page 5.12-24, Section 5.12-1, Project Site Water Infrastructure and Conveyance. Based upon the proximity of water transmission lines from California American Water Company, the off-site water analysis should include an Option #4 of connecting water mains up South Watt Avenue to existing California American Water Company facilities.

14-44

Page 5.12-25, Section 5.12-1, Project Site Water Infrastructure and Conveyance, Figure 5.12-3. Based upon the proximity of water transmission lines from California American Water Company, the off-site water analysis should include an Option #4 of connecting water mains up South Watt Avenue to existing California American Water Company facilities.

Chapter 8. Project Alternatives

14-45

↓ Pages 8-17 and 8-18, Environmentally Superior Alternative. The DEIR concludes that the Reduced Density Alternative “provides the greatest reduction in the level of environmental impacts while meeting the overall objectives of the project.” On that basis, the DEIR concludes that the Reduced Density Alternative is the Environmentally Superior Alternative. However, it should be noted that the Reduced Density Alternative would not be as successful at meeting project objectives as would the proposed Project. For example, the Reduced Density Alternative would provide less commercial uses (135,000 square feet versus 222,000 square feet, a 87,000 square foot reduction), which would render it less effective at meeting the project objective of providing commercial uses adjacent to a major regional thoroughfare and employment hub. Furthermore, by providing 167 fewer residential units than the proposed Project, the Reduced Density Alternative would make it more difficult to meet the project objectives of providing affordable housing and of establishing multi-modal forms of transit. By providing fewer housing units, the Reduced Density Alternative would require regional demand for housing that cannot be accommodated on the project site to be met on other sites that are more distant from existing services and infrastructure, which would render this alternative less effective of meeting the project objective related to promoting good planning practice. For the same reasons, the Reduced Density Alternative would be potentially inconsistent with contemporary planning and “Smart Growth” principles outlined in the City’s General Plan and SACOG’s Regional Blueprint. Lastly, as noted in the DEIR, the

Letter 14 cont

Ms. Dana Allen
September 14, 2012
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14-45
Con't



Reduced Density Alternative would not reduce any of the Project's significant and unavoidable impacts to a less-than-significant level.

Thanks for the opportunity to provide our comments on the DEIR. Please let us know if you have any questions or require further clarification regarding our comments.

Sincerely,

James B. Wiley

Enclosures

cc: Mike Isle, Stonebridge Properties

LETTER 14: JAMES WILEY

Response to Comment 14-1

The comment is an introductory statement and does not address the adequacy of the Draft EIR.

Response to Comment 14-2

In response to this comment and for clarification purposes, the inside cover of the Draft EIR has been revised as follows:

Project Applicant

Stonebridge Properties, LLC
3500 American River Drive
Sacramento, CA 95864

Contact:

Mike Isle
~~(916) 966-4600~~ (916) 484-3200

Response to Comment 14-3

For clarification purposes, the first paragraph of the project description summary included on pages 1-1 and 1-2 of the Introduction Chapter of the Draft EIR is hereby revised as follows:

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, open space, 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, and California Public Utilities Commission (PUC) modification of the California American (Cal-Am) Water service territory to remove the annexation portion of the project site from Cal-Am's

boundaries. For more details regarding the proposed project, please see Chapter 3, Project Description, of this Draft EIR.

For clarification purposes, page 1-2 of the Introduction Chapter of the Draft EIR, under Section 1.5, Use of Previously Prepared Environmental Documentation, is further revised to clarify the title of the City's General Plan EIR:

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

For clarification purposes, page 1-10 of the Introduction Chapter of the Draft EIR, under Section 1.11, Organization of the Draft EIR, is revised as follows:

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, as well as PUC modification of the Cal-Am Water service territory to remove the annexation portion of the project site from Cal-Am's boundaries.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-4

For clarification purposes, the fifth paragraph on page 2-2 of the Executive Summary Chapter of the Draft EIR is hereby revised as follows:

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, and PUC modification of the Cal-Am Water service territory to remove the annexation portion of the project site from Cal-Am's boundaries. As part of the annexation, a tax exchange agreement between the City of Sacramento and Sacramento County will be required.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-5

Please refer to Response to Comment 12-2 above.

Response to Comment 14-6

As discussed throughout the Draft EIR, the approach to water supply for the project is to obtain PUC modification of the Cal-Am Water service territory to remove the annexation portion of the project site from Cal-Am's boundaries, so that the entire project site could be served water by

the City of Sacramento Department of Utilities. A fourth off-site water supply alternative that involves connecting the project site to Cal-Am's existing facilities up South Watt Avenue would require the City of Sacramento Department of Utilities to negotiate water rights with Cal-Am, an approach that is not consistent with City policy. Furthermore, as noted on page 5.12-23 of the Draft EIR, Cal-Am Water has indicated that the company does not have any objection to the City of Sacramento providing water service to the annexation portion of the project site that is currently within their service territory.

Response to Comment 14-7

For clarification purposes, the list of required public approvals on pages 3-17 and 3-19 of the Project Description Chapter of the Draft EIR is hereby revised as follows:

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-SPDPUD);
- Large Lot Tentative Subdivision Map;
- Tentative Subdivision Map and associated Subdivision Modifications (as detailed on the Tentative Map);
- PUD Establishment;
- Special Planning District (SPD) 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.

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;
- FEMA issuance of a Letter of Map Revision (LOMR), Conditional Letter of Map Revision (CLOMR), or a new FIRM in the event that the Project site or a portion thereof is designated in a SFHA;
- Sacramento County approval of off-site water, wastewater, and drainage improvements;
- 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).

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-8

For clarification purposes, the first paragraph under the “Reorganization” header on page 3-23 of the Project Description Chapter of the Draft EIR is hereby revised as follows:

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, and PUC modification of the Cal-Am Water service territory to remove the annexation portion of the project site from Cal-Am's boundaries.

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-9

For clarification purposes, the first sentence of the third paragraph on page 5.1-28 of Chapter 5.1, Air Quality and Climate Change, is revised as follows:

The mitigated emissions shown in Tables 5.1-7 and 5.1-8 reflect reductions in the vehicle miles traveled included in the project traffic report, but do not include mitigation associated with the design features described in the project's AQMP. Via the design features, the proposed project would reduce ROG and NO_x emissions by 38.3 percent, which reduces Unmitigated NO_x emissions are already below the District's 65 ppd emission threshold with and without the elementary school; therefore, the design features of the project would further reduce 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**.

The above changes do not affect the adequacy of the original environmental analysis contained in the Draft EIR; rather, the changes serve to clarify the previous analysis and associated findings.

Response to Comment 14-10

For clarification purposes, Impact 5.1-7, Impacts related to the creation of objectionable odors, on pages 5.1-29 and 5.1-32 of Chapter 5.1, Air Quality and Climate Change, is revised as follows:

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~~Five potential odor sources in the vicinity of the project site could potentially affect the project's residents (See Figure 5.1-2).

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 ~~and~~
- On-site urban farm.

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. It should be noted that four of the 13 Perkins Plant odor complaints received by SMAQMD reflect multiple complaints received on the same day, and six of the 13 complaints were received within the span of a single week in September 2008. The source of these complaints has since been rectified by Teichert, as evidenced by the fact that Perkins Plant odor complaints have not been received by SMAQMD for the entire 2010 calendar year. 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. Furthermore, the existing permit conditions for the Florin-Perkins landfill restrict the receipt of odor-causing materials at the Materials Recovery Facility. 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, a~~ Although these land uses will provide a buffer zone, odors could still be detectable at residences. It is important to note, however, that the L and D landfill is in the closure process; therefore, future project residents will not be exposed to potential odors from L and D landfill over the long-term.

The 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 could generate odors that could be considered objectionable by future residents. Organic farming techniques and the limited usage of chemicals could create odors that could be transported to the proposed on-site residential areas via the prevailing northerly winds. Given the uncertainty related to the potential generation of objectionable odors associated with the proposed urban farm and the consideration that Ffeasible mitigation measures are not available to reduce these odor impacts associated with the 23rd Avenue/Warehouse Way Industrial Area and the L and D Landfill, so long as it continues to operate. ~~Consequently,~~ the proposed project would have a **significant and unavoidable** impact.

The above changes to Impact 5.1-7 do not affect the adequacy of the original environmental analysis contained in the Draft EIR. The odor impact was identified as significant and unavoidable in the Draft EIR; and this conclusion has not changed.

Response to Comment 14-11

Page 5.2-33 of Chapter 5.2, Biological Resources, includes the City's criteria for heritage trees in the Regulatory Background section. In order to provide a more direct reference to these criteria in the Existing Environmental Setting section of the chapter, the "Protected Trees" discussion is hereby revised on page 5.2-15 as follows:

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. These criteria are as follows:

Heritage Trees

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).

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.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-12

The second paragraph on page 5.2-25 of the Biological Resources Chapter, under the Vernal Pool Crustaceans header, is hereby revised to reflect the results of a second wet season survey, the results of which indicate that vernal pool crustaceans were not found (See Attachment A of this document):

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~~ have not been observed within potential habitats located within the project area. ~~In addition, the first of the t~~ Two wet season surveys ~~had~~ have been completed, ~~(during which vernal pool crustaceans were not found) and the second wet season survey was in process.~~

The above changes are for clarification purposes. Because survey results were negative for vernal pool crustaceans, the significance of Impact 5.2-2 was changed from potentially significant before mitigation to less than significant, as noted in Response to Comment 14-16. According to CEQA Guidelines §15088.5(a), going from significant to less than significant does not warrant recirculation because it is neither a new significant environmental impact not addressed in the DEIR nor a substantial increase in the severity of a previously identified environmental effect.

Response to Comment 14-13

Page 5.2-29 of the Biological Resources Chapter is hereby revised to provide additional details concerning the limits of U.S. Army Corps jurisdiction:

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.) In addition, the USACE does not typically recognize as jurisdictional those ditches that have been excavated in uplands and do not carry a relatively permanent flow of water (U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, “Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in *Rapanos v. United States* and *Carabell v. United States*,” December 2, 2008).

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-14

The Sacramento County General Plan Regulatory Context discussion on Page 5.2-33 of the Biological Resources Chapter of the Draft EIR is hereby revised to fix a few inadvertent errors in the policy language and policy number references:

Sacramento County General Plan

Sacramento County General Plan Policy CO-6258 currently provides protection to aquatic ecosystems. Specifically, the policy reads: “[...] ~~Ensures no net loss of marsh and wetlands, riparian woodlands acreage, values, or functions and oak woodlands.~~” The General Plan also seeks to protect heritage, landmark and other native trees (collectively referred to as “protected trees”). “Landmark trees” are defined as must be “any nonoak native tree measuring 19 inches in diameter at breast height stately, prominent, and have exceptional habitat values.” A heritage tree is defined as “a native oak (Valley Oak, Interior Live Oak, Blue Oak, and Oracle Oak) that exceed 60 inches in circumference (18 to 20 inches in diameter at breast height). Policies CO-130138 and 139 encourages protection and preservation of native oak trees and other than oaks native trees (excluding cottonwoods) and landmark trees.

As a result of the above changes, Impact 5.2-11, Impacts related to the loss of heritage and/or protected trees, on page 5.2-45 of the Biological Resources Chapter is revised as follows:

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-133140, 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-~~432~~140 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-~~436~~140 allows the applicant to mitigate off-site for such impacts, provided the off-site area meets the following criteria:

Mitigation Measure 5.2-11 is also hereby revised to reflect the Sacramento County General Plan policy reference numbers, as follows:

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. A qualified arborist shall perform an assessment of the health of protected trees to determine which trees require mitigation. 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-~~436~~140.*

The above changes are for clarification purposes and do not affect the adequacy of the original analysis contained in the Draft EIR.

Response to Comment 14-15

In response to the comment, the first paragraph on page 5.2-38 of the Biological Resources Chapter, under Impact 5.2-1, Impacts to wetlands and associated resources, is revised to clarify which offsite features would not be considered jurisdictional:

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). In addition, the USACE does not typically recognize as jurisdictional those ditches that have been excavated in uplands and do not carry a relatively permanent flow of water (U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* and *Carabell v. United States*," December 2, 2008). 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 ponds (all but the industrial pond on the Mayhew property) and all four offsite drainage ditches 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 above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-16

Impact 5.2-2, starting on page 5.2-39 of the Biological Resources Chapter of the Draft EIR, is hereby revised to reflect the results of a second wet season survey, which was not available at the time of preparation of the Draft EIR. The results of the second wet season survey indicate that vernal pool crustaceans are not present on the Mayhew property:

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 have~~ have been completed (2009/2010) and ~~the second (2010/2011) wet season survey was in process. To date, v~~ ernal pool fairy shrimp and/or vernal pool tadpole shrimp have not been observed within the potential habitats located within the project area.

In addition, 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, Because two wet season surveys have been conducted on the Mayhew property in accordance with USFWS protocol and vernal pool crustaceans have not been detected, the project's impact would be **potentially less-than-significant.**

Mitigation Measure(s)

~~Implementation of the following mitigation measure would reduce the above impact to a less than significant level. None required.~~

~~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."~~

The above changes to Impact 5.2-2 are based upon evidence provided in Attachment A of this document. The evidence consists of the results of the second wet season survey for listed vernal pool branchiopods, which was performed by Gibson & Skordal. Based upon this evidence in the record, it can be concluded that the project would not have adverse impacts to listed vernal pool branchiopods. According to CEQA Guidelines §15088.5(a), going from significant to less than significant does not warrant recirculation because it is neither a new significant environmental impact not addressed in the DEIR nor a substantial increase in the severity of a previously identified environmental effect.

Response to Comment 14-17

Please see Response to Comment 14-14.

Response to Comment 14-18

Please see Response to Comment 14-14.

Response to Comment 14-19

In response to the comment, select cultural resources policies from the Sacramento County General Plan are hereby provided on page 5.3-6 of the Cultural Resources Chapter of the Draft EIR (Chapter 5.3), above the Historic Preservation Ordinance header, in order to provide a more comprehensive Regulatory Background. The additional polices do not affect the adequacy of the original environmental analysis contained in the Draft EIR.

Sacramento County General Plan

CO-157. Monitor projects during construction to ensure crews follow proper reporting, safeguards, and procedures.

CO-158. As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction.

CO-161. As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.

CO-162. Projects located within areas known to be sensitive for paleontological resources, should be monitored to ensure proper treatment of resources and to ensure crews follow proper reporting, safeguards and procedures.

CO-163. Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.

Response to Comment 14-20

For clarification purposes, the second and final paragraphs of Impact 5.3-1 on page 5.3-8 of the Cultural Resources Chapter of the Draft EIR are hereby clarified regarding the total acreage of the cultural resources survey:

SWCA Environmental Consultants, Inc. did not identify any prehistoric, archaeological, or historic-era cultural resources within the study area, which is comprised of the approximately 232-acre Aspen I site and the 136-acre off-site infrastructure improvement area. 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 portion of the 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 reexcavation. 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 of 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.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-21

In response to the comment, Mitigation Measure 5.6-4 on page 5.6-35 of the Hydrology, Water Quality, and Drainage Chapter of the Draft EIR is hereby revised for clarification purposes as follows:

- 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). 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.

The above changes do not affect the adequacy of the original environmental analysis contained in the Draft EIR. Rather, the changes identify possible ways to achieve the requirements already set forth in Mitigation Measure 5.6-4 of the Draft EIR.

Response to Comment 14-22

In response to the comment, Mitigation Measure 5.7-2 on page 5.7-26 of the Noise and Vibration Chapter of the Draft EIR is hereby revised for clarification purposes as follows:

- 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, if necessary, to ensure that the City's applicable exterior and interior (45 dBA Ldn) noise level standards for residential uses are not exceeded.*

The above change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-23

The Draft EIR's significant and unavoidable conclusion for Impact 5.7-3 - specifically, the impact associated with noise generated by the adjacent Teichert Perkins Plant and associated on-site conveyor - is based upon the fact that key source control measures included in Mitigation Measure 5.7-3(b), which are required to reduce the noise impact to a less-than-significant level, would need to be implemented off-site by another landowner. The City cannot ensure that such off-site source control measures are effectively implemented. Similarly, Mitigation Measure 5.7-3(d) requires relocation of the existing on-site conveyor system associated with the Teichert Perkins Plant, a requirement which is outside of the control of the City and the project applicant. As a result, the Draft EIR's conclusion that a significant and unavoidable noise impact could result from the Teichert Perkins Plant is appropriate and changes to the Draft EIR are not required.

Response to Comment 14-24

The commenter requests the Project's fair share percentage for traffic mitigation measures to be defined.

This comment does not address the adequacy of the Draft EIR. The fair share percentage shall be calculated at a later phase during the project Entitlement approval.

Response to Comment 14-25

As shown on Draft EIR Figure 3-4, the extension of 14th Avenue would cross the northwest portion of the site adjacent to the existing Jackson Road right-of-way. The text on page 5.10-1, first paragraph in Project Description section, of the Draft EIR is changed as follows:

In addition, the ~~project would include realignment~~ future extension of 14th Avenue (to the west) ~~in~~ would cross the northwestern portion of the site.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-26

The text on page 5.10-5, last paragraph, is revised as follows:

Sacramento County ~~is in the process of updating its~~ adopted an updated Bicycle Master Plan. ~~Adoption of the plan is anticipated in early April 2011.~~¹ Figure 5.10-4 illustrates the ~~draft~~ master plan facilities near the project site.

¹ ~~http://www.msa2.saccounty.net/transportation/Pages/BikewayMasterPlan.aspx Accessed 30 November 2010-1~~ October 2012.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-27

In response to the comment, Figure 5.10-4, on page 5.10-7, Chapter 5.10, of the Draft EIR has been updated to reflect the Sacramento County Bikeway Master Plan, with Amendments through January 24, 2012, and is hereby replaced by the figure on the following page. The change is for clarification purposes only and does not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-28

In the determination of impact thresholds in the Draft EIR, in cases where more than one jurisdiction was involved, the more conservative threshold was utilized. Thus, the LOS D criteria were used at the intersection of South Watt Avenue and Jackson Road based upon City of Sacramento 2030 General Plan policies. This decision was coordinated by the Sacramento County staff as well.

Response to Comment 14-29

The text on page 5.10-30 under Method of Analysis section of the Draft EIR is revised as follows:

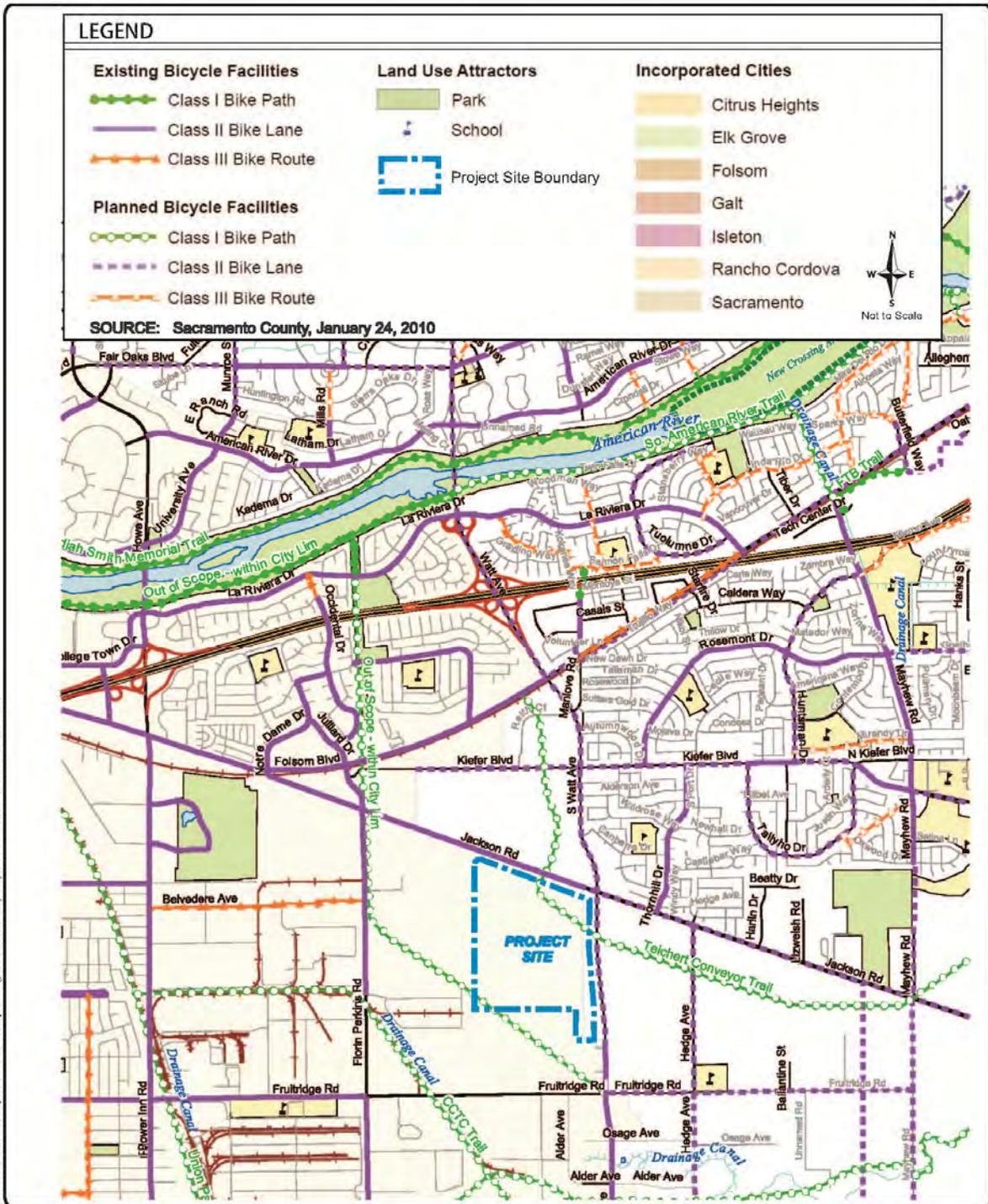
For the cumulative scenarios, traffic associated with full development of the project and alternative have been added to future year traffic on the roadway system. The future year forecasts were developed through use of SACSIM. The SACSIM database utilized in this analysis includes the following:

- land use and transportation networks associated with the City's 2030 General Plan within City boundaries, as detailed in the "Sacramento 2030 General Plan Master Environmental Impact Report, Certified March 3, 2009"
- the land use and transportation networks associated with the County's ~~proposed~~ 2030 General Plan Update within the unincorporated County, as detailed in the "Final Environmental Impact Report, Sacramento County General Plan Update, April 2010" and
- year 2030 land use estimates and networks elsewhere, based upon projections for SACOG's 2035 Metropolitan Transportation Plan, prorated to 2030.

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.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Figure 5.10-4
Sacramento County Bicycle Master Plan – Existing and Planned Bicycle Facilities



P:\2009\09\04-005 Aspen 1 Phase 2\Graphics\Figure 4-Sac County Bicycle Master Plan - Revised 10-02-12.cdr

DKS Associates
 TRANSPORTATION SOLUTIONS

FIGURE 5.10-4
SACRAMENTO COUNTY BICYCLE MASTER PLAN
EXISTING AND PLANNED BICYCLE FACILITIES

ASPEN 1

Response to Comment 14-30

As a condition of approval to Aspen 1 project, the project applicant shall be required to dedicate the right-of-way needed for S. Watt Avenue as a future six lane arterial road per the City of Sacramento Design and Procedures Manual, Section 15. The parcel to the south, according to the County Assessor Map, already dedicated the required right of way for a six lane facility all the way to Fruitridge Road. During the Plan Check phase of Aspen 1 project, the roadway improvements and the phasing of widening S. Watt Avenue and Jackson Road shall be coordinated with all affected agencies to implement such mitigation measure.

Response to Comment 14-31

The potential facilities could be bus stops and shelters, or a new bus route to serve the future residential neighborhoods.

Response to Comment 14-32

Please refer to Response to Comment 14-30 above.

Response to Comment 14-33

Please refer to Response to Comment 14-31 above.

Response to Comment 14-34

The text on page 5.10-63 of the Draft EIR is revised as follows:

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 following:

- land use and transportation networks associated with the City's 2030 General Plan within City boundaries, as detailed in the "Sacramento 2030 General Plan Master Environmental Impact Report, Certified March 3, 2009";
- the land use and transportation networks associated with the County's ~~proposed~~ 2030 General Plan Update within the unincorporated County, as detailed in the "Final Environmental Impact Report, Sacramento County General Plan Update, April 2010"; and
- year 2030 land use estimates and networks elsewhere, based upon projections for SACOG's 2035 Metropolitan Transportation Plan, prorated to 2030.

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.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-35

The text on page 5.10-64, second paragraph, of the Draft EIR is revised as follows:

While the Sacramento County 2030 General Plan Update includes ~~urban interchange~~ high capacity intersections at the South Watt Avenue intersections 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, standard at-grade intersections were assumed at these locations.

The above changes are for clarification purposes only and do not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-36

As noted by the commenter, and described in the discussion of Level of Service Policy on pages 5.10-18 through 19, General Plan Policy M 1.2.2 indicates that level of service policy deviations may be considered acceptable if alternative improvements are provided. However, at this time, such improvements have not been identified.

Response to Comment 14-37

At the time the Transportation and Circulation section of the Draft EIR was prepared the State Route 16 Corridor Study (July 2012) was in its initial stages and the planned lane configuration of this intersection was not yet identified. After coordination between the City and the County of Sacramento it was agreed to assume a standard lane configuration for analysis purposes.

Response to Comment 14-38

The analysis of intersection 10 (Folsom Boulevard and Jackson Road) has been revised to reflect the current intersection geometry and traffic signal phasing, which includes a right-turn overlap phase from eastbound Folsom Boulevard to eastbound Jackson Road. With this change in analysis, the impact of the project is less-than-significant for all scenarios, and mitigation measure 5.10-20(d) has to be eliminated. Accordingly, the text at the top of page 5.10-90 of the Draft EIR is hereby revised as follows:

- ~~(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.~~
- (de) 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.
- (df) 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.
- (fg) 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.

- (g~~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.

In addition, mitigation measures 5.10-20(d) through 5.10-20(h) on page 5.10-91 are hereby revised as follows:

- ~~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(~~d~~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(~~e~~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.
- 5.10-20(~~f~~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(~~g~~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.

Furthermore, Table 5.10-9 is revised as follows:

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)
10. Notre Dame Drive / Jackson Road and Folsom Boulevard	E	Signal	C	27.6 <u>25.6</u>	C	22.5 <u>20.2</u>
<p>Note: VC = Volume-to-Capacity Ratio for Critical Lane Methodology Source: DKS Associates, 20142.</p>						

Table 5.10-19 is revised as follows:

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	
				LOS¹	Delay²	LOS¹	Delay²	LOS¹	Delay²
10. Notre Dame Drive / Jackson Road and Folsom Boulevard	E	Signal	A.M.	C	27.6 <u>25.6</u>	C	27.3 <u>25.4</u>	C	26.9 <u>25.2</u>
			P.M.	C	22.5 <u>20.2</u>	C	26.5 <u>23.0</u>	C	25.3 <u>22.0</u>
<p>Note: VC = Volume-to-Capacity Ratio for Critical Lane Methodology</p> <p>1. Level of Service</p> <p>2. Seconds of Delay</p> <p>Source: DKS Associates, 20142.</p>									

Table 5.10-27 is revised as follows:

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
10. Notre Dame Drive / Jackson Road and Folsom Boulevard	E	Signal	A.M.	<u>E</u> <u>C</u>	<u>68.5</u> <u>25.2</u>	<u>E</u> <u>C</u>	<u>66.9</u> <u>24.1</u>	<u>E</u> <u>C</u>	<u>72.8</u> <u>24.3</u>
			P.M.	<u>F</u> <u>E</u>	<u>131.8</u> <u>61.9</u>	<u>F</u> <u>E</u>	<u>141.4</u> <u>67.7</u>	<u>F</u> <u>E</u>	<u>133.7</u> <u>61.0</u>
<p>Note: VC = Volume-to-Capacity Ratio for Critical Lane Methodology 1. Level of Service 2. Seconds of Delay Source: DKS Associates, 20142.</p>									

Because the Draft EIR determined that with implementation of mitigation measure 5.10-20(d), the impact would be reduced to a less-than-significant level, the above changes do not alter the overall conclusions contained within the Draft EIR. According to CEQA Guidelines §15088.5(a), going from significant to less than significant (as noted for Intersection 10, Jackson Road/Folsom Boulevard) does not warrant recirculation because it is neither a new significant environmental impact not addressed in the DEIR nor a substantial increase in the severity of a previously identified environmental effect.

Response to Comment 14-39

Please refer to Response to Comment 14-36 above.

Response to Comment 14-40

Please refer to Response to Comment 14-36 above.

Response to Comment 14-41

The comment does not address the adequacy of the Draft EIR.

Response to Comment 14-42

In response to this comment and for clarification purposes, the third paragraph on page 5.11-3 in Chapter 5.11, Urban Design and Visual Resources, of the Draft EIR is hereby revised as follows:

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-related operations on-site.

The above change corrects text and does not alter any of the conclusions contained within the Draft EIR.

Response to Comment 14-43

Please refer to Response to Comment 14-6 above.

Response to Comment 14-44

Please refer to Response to Comment 14-6 above.

Response to Comment 14-45

Comment noted. CEQA requires the selection of an environmentally superior alternative to the proposed project. The commenter's concern regarding the inconsistency between the Environmentally Superior Alternative and the proposed project's objectives will be forwarded to the City's decision-makers for their consideration.



September 11, 2012

Mr. Jesse Yang
 Taylor & Wiley
 2870 Gateway Oaks Drive, Suite 200
 Sacramento, CA 95833

Subject: Impact 5.7-3 of the Aspen 1 – New Brighton Draft EIR.

Dear Mr. Yang,

15-1

Pursuant to your request, Bollard Acoustical Consultants, Inc. (BAC) has reviewed Impact 5.7-3 of the above-referenced DEIR. That impact pertains to noise generated by the existing Teichert Perkins plant-area equipment and the existing aggregates conveyor located on the New Brighton project site.

15-2

Impact 5.7-3 correctly identifies potentially significant noise impacts associated with ongoing operation of the Perkins plant-area equipment and on-site conveyor, and it provides specific noise mitigation measures related to this impact. My question is why this impact is considered significant and unavoidable when the proposed mitigation measures 5.7-3(b), 5.7-3(d), and 5.7-3(e) would prohibit noise-sensitive development within the New Brighton project site until noise control measures have been implemented which would result in satisfaction with the City's noise standards? The specific language of those noise mitigation measures is provided below.

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.*

Mr. Jesse Yang
September 11, 2012
Page 2

- 15-2
Con't
- 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.*

15-3

As you know, BAC authored the noise analysis which was used to develop the noise section of the DEIR. As such, we are intimately familiar with this potential impact and associated noise mitigation measures. Therefore, it is our professional opinion that the noise mitigation measures for Impact 5.7-3, while sophisticated, would reduce this impact to a less than significant level.

Please contact me at (916) 663-0500 or paulb@bacnoise.com if you have any comments or questions regarding this letter.

Sincerely,

Bollard Acoustical Consultants, Inc.


Paul Bollard
President

LETTER 15: PAUL BOLLARD, BOLLARD ACOUSTICAL CONSULTANTS

Response to Comment 15-1

The comment is an introductory statement and does not address the adequacy of the Draft EIR

Response to Comment 15-2

Please refer to Response to Comment 14-23 above.

Response to Comment 15-3

The comment does not pertain to the adequacy of the Draft EIR.

APPENDIX A

Date: June 24, 2015

To: Dana Mahaffey, Associate Planner, Community Development Department

From: Samar Hajeer, Senior Engineer, Department of Public Works

Subject: Final Environmental Impact Report for the Aspen 1- New Brighton Project (P09-038) – Transportation and Circulation Section Review per Sacramento 2035 General Plan Thresholds

The Draft Environmental Impact Report (DEIR) for Aspen 1- New Brighton project was circulated for a public review period from July 18, 2012 to September 14, 2012. The DEIR was based on policies and goals as listed in the approved 2030 General Plan. Several impacts were defined in the DEIR and mitigation measures were included in the DEIR to reduce most impacts to less than significant levels. Some of the impacts were identified as significant and unavoidable.

On March 3, 2015, City of Sacramento adopted Sacramento 2035 General Plan as the first five-year review and revision of 2030 City of Sacramento General Plan. The 2035 General Plan retains the overall land use and policy direction established in the 2030 General Plan, and contains a refinement and updating of the goals and policies, including update of the traffic level of service (LOS) policy to implement a flexible, context-sensitive LOS standard.

Key changes in the 2035 General Plan include a policy shift that would maximize the efficiency of the roadway network for all transportation modes while minimizing potential negative impacts. The citywide traffic operation goal remains at LOS D while new areas and streets were identified where the City has established variable LOS thresholds appropriate for the unique characteristics of the City's diverse neighborhoods and communities. These new areas are included in the Policy M 1.2.2:

- A. Core Area (Central City Community Plan Area) – LOS F allowed
- B. Priority Investment Areas – LOS F allowed
- C. LOS E Roadways – LOS E is allowed for a list of roadways because expansion of the roadways would cause undesirable impacts or conflict with other community values. LOS E is also allowed on all roadway segments and associated intersections located within ½ mile walking distance of light rail stations.
- D. Other LOS F Roadways – LOS F is allowed for a list of roadways because expansion of the roadways would cause undesirable impacts or conflict with other community values.
- E. If maintaining the above LOS standards 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, promote non-vehicular transportation, and/or implement vehicle trip reduction measures as part of a development project or a city-initiated project. Additionally the City shall not expand the physical capacity of the planned

roadway network to accommodate a project beyond that identified in Figure M4 and M4a (2035 General Plan Roadway Classification and Lanes).

As it relates to the transportation network analyzed in Aspen 1- New Brighton project DEIR Transportation and Circulation section, Sacramento 2035 General Plan Policy M 1.2.2.D includes the following LOS F Roadways where LOS F is allowed:

- Folsom Boulevard: Howe Avenue to Jackson Highway
- Folsom Boulevard: US 50 to Howe Avenue
- South Watt Avenue: US 50 to Kiefer Boulevard

LOS F is allowed for the above roadways per Sacramento 2035 General Plan Policy M 1.2.2.D because expansion of the roadways would cause undesirable impacts or conflict with other community values.

It must be noted that Policy M 1.2.2.E applies equally to these roadway segments by accepting LOS F conditions provided that provisions are made to improve the overall system, promote non-vehicular transportation, and/or implement vehicle trip reduction measures as part of a development project.

City of Sacramento, Department of Public Works has reviewed Aspen 1- New Brighton project DEIR Transportation and Circulation section for consistency with the 2035 General Plan policies to determine if any of transportation impacts identified as significant unavoidable per City of Sacramento 2030 General Plan would have less than significant level of significance if Sacramento 2035 General Plan policies were applied.

It should be noted that the transportation facilities located in Sacramento County and Caltrans jurisdiction do not have any changes of thresholds of significance.

The following is an evaluation of the impacts and mitigation measures provided in Aspen 1- New Brighton DEIR Transportation and Circulation section (for the Project and No School Alternative) in relation to the 2035 General Plan policies:

Impact 5.10-1(a), Intersection of South Watt Avenue and Folsom Boulevard. This intersection is operated by Sacramento County. Sacramento County General Plan threshold LOS E for urban areas applies. Therefore, Sacramento 2035 General Plan Policy M 1.2.2 does not change the impact significance. This impact remains **significant and unavoidable**.

Impacts 5.10-20(a) and 5.10-28(a), Intersection of South Watt Avenue and Jackson Road. This intersection is operated by Sacramento County and Sacramento County General Plan threshold LOS E for urban areas applies. Sacramento 2035 General Plan Policy M 1.2.2 does not change the impact significance. These impacts remain **significant and unavoidable**.

Impact 5.10-20(b), Intersection of Howe Avenue/Power Inn Road and Folsom Boulevard. This intersection is within the City of Sacramento jurisdiction. Sacramento 2035 General Plan Policy M 1.2.2.D and Policy M1.2.2.D allow for LOS F. Policy M1.2.2.E explain that LOS F is accepted provided that provisions are made to improve the overall system, promote non-vehicular transportation, and/or implement vehicle trip reduction measures as part of a development project. As

no feasible mitigation measure has been identified in the DEIR at the subject intersection, this impact remains ***significant and unavoidable***.

Impacts 5.10-20(f) and 5.10-28(e), Intersection of Watt Avenue and US 50 Westbound Ramps. This intersection is in Caltrans jurisdiction and threshold LOS E applies. Sacramento 2035 General Plan Policy M 1.2.2 does not change the impact significance. No feasible mitigation measure has been identified and these impacts remain ***significant and unavoidable***.

Impacts 5.10-21(a) and 5.10-29(a), South Watt Avenue from Jackson Road to Fruitridge Road. This roadway segment has LOS D threshold and Sacramento 2035 General Plan Policy M 1.2.2 does not change the impact significance. No feasible mitigation measure has been identified and these impacts remain ***significant and unavoidable***.

Impacts 5.10-21(b) and 5.10-29(b), Jackson Road from 14th Avenue to South Watt Avenue. This roadway segment has LOS D threshold and Sacramento 2035 General Plan Policy M 1.2.2 does not change the impact significance. No feasible mitigation measure has been identified and these impacts remain ***significant and unavoidable***.

Impacts 5.10-22 and 5.10-30, Freeway Mainline. This transportation facility is in Caltrans jurisdiction and threshold LOS E applies. Sacramento 2035 General Plan Policy M 1.2.2 does not change the impact significance. The applicant shall pay fair share contribution toward the development of the high occupancy vehicles (HOV) lanes on US-50 from Watt Avenue to Howe Avenue. For purposes of CEQA, these impacts remain ***significant and unavoidable***.

Impacts 5.10-23 and 5.10-31, Ramp Junctions. This transportation facility is in Caltrans jurisdiction and threshold LOS E applies. Sacramento 2035 General Plan Policy M 1.2.2 does not change the impact significance. For purposes of CEQA, these impacts remain significant and unavoidable.

Impact 5.10-33, Freeway Ramp Queueing. This transportation facility is in Caltrans jurisdiction. Sacramento 2035 General Plan Policy M 1.2.2 does not change the impact significance. For purposes of CEQA, this impact remains ***significant and unavoidable***.

Based on the facts and conclusions outlined above no changes or revisions are required to the impacts and mitigation measures listed in Aspen 1- New Brighton project DEIR.

APPENDIX B



NICHOLS CONSULTING ENGINEERS, Chtd.
Engineering and Environmental Services

8795 Folsom Blvd., Suite 250 • Sacramento, CA 95826 • 916.388.5655 • FAX 916.388.5676

September 27, 2013

NCE Job #A465.06.35

Ms. Dana Allen
City of Sacramento Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento, California 95811

**Landfill Gas Evaluation
Florin Perkins and L and D Landfills
Aspen 1 Property
Sacramento, California**

Dear Ms. Allen:

Nichols Consulting Engineers, Chtd. (NCE) is pleased to submit the attached *Landfill Gas Evaluation* related to the Aspen 1 property. If you have any questions, please do not hesitate to call.

Yours very truly,

NICHOLS CONSULTING ENGINEERS, Chtd.

Michael J. Leacox, C.E.G.
Principal

Enclosure

cc: Michael Isle (No Enclosures)



NICHOLS CONSULTING ENGINEERS, Chtd.
Engineering and Environmental Services

8795 Folsom Blvd., Suite 250 • Sacramento, CA 95826 • 916.388.5655 • FAX 916.388.5676

Landfill Gas Evaluation
Florin Perkins and L and D Landfills
Aspen 1 Property
Sacramento, California

Prepared for

Stonebridge Properties, LLC
3500 American River Drive
Sacramento, California 95864-5805

NCE Project No. A465.06.35

Brett Bardsley
Senior Geologist

Michael J. Leacox, C.E.G.
Principal

September 27, 2013

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C	Thickness and Distribution of Cobble and Heavy Gravel Layer at F-P Landfill
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H	L and D LFG Probe Locations and Construction Details



I L and D Landfill LFG Data Tables

J SLR Screening Risk Evaluation

DISTRIBUTION



1.0 INTRODUCTION

Nichols Consulting Engineers, Chtd. (NCE) previously conducted a review of existing and recently collected environmental data for the Aspen 1 property located in the City of Sacramento, Sacramento County, California (Plates 1 and 2). The review is summarized in a February 2, 2011 report entitled *Environmental Data Evaluation Report, Aspen 1 Property, Sacramento, California*. The purpose of the evaluation was to assess the potential for on-site and off-site constituents in the different media (i.e., soil, groundwater, and soil vapor) located on-site, and on adjacent properties (i.e., the Florin Perkins (F-P) and L and D Landfills), to impact conditions at Aspen 1 in light of Stonebridge's re-use plans. The review included an evaluation of the potential for specific VOC's in landfill gas (LFG) from the adjacent F-P and L and D landfills to migrate through the vadose zone and collect within structures, trenches or vaults to be located on Aspen 1 in the future, or for emissions from the landfill to affect future occupants or users of the Aspen 1 property. The F-P and L and D landfills are located at the western and southern margins of Aspen 1, respectively (Plates 2 and 3) and are the focus of this evaluation.

Stonebridge's proposed re-use plans include low- and high-density residential, educational, mixed use, commercial, recreational, parks and urban farm re-uses, including structures along the western and southern boundaries of the Aspen 1 property. The currently envisioned re-use plan is shown on Plate 3 and attached as Appendix A. Following issuance of the Environmental Data Evaluation Report and review of the project's Environmental Impact Report (EIR) the City of Sacramento requested a more detailed evaluation of the concerns associated with LFG and to analyze the potential for existing and future impacts to Aspen 1 by LFG associated with the two adjacent landfills. This report provides that additional information.

The objective of this Landfill Gas Evaluation Report is to use existing information for each adjacent landfill regarding the local and relevant geologic features, current, historical and anticipated future operations, waste types and volumes, relevant construction features, LFG monitoring data, and LFG control systems, with the goal of understanding the potential for LFG to pose an unreasonable threat to the proposed Aspen 1 re-use plans. An unreasonable threat would be the potential for the components of LFG from the landfill to be present at concentrations in air that pose a health hazard to the users and property owners within the Aspen 1 development, or for the components of LFG to migrate to, and enter buildings, dwellings or other physical structures, with the potential for methane to accumulate to such a degree that the LFG poses a hazard to the occupants of those structures. As will be discussed later in this report the basis for concluding whether LFG poses a health hazard or potential for accumulation is based on existing regulatory standards.

Section 2 of this report includes a description of the Site and surrounding land uses; an overview of the geology, hydrogeology and soil types at and in the immediate vicinity of the Site; Section 3 provides the regulatory framework associated with regulated landfills and an understanding of the concerns associated with landfills; Section 4 provides a description of each landfill including their histories, construction, operational detail, waste types and LFG monitoring systems. Section 5 discusses the potential for LFG generation and migration, as well as an assessment of the risk associated with volatile organic compounds (VOCs) for each landfill, and Section 6 provides a summary of the findings.



2.0 BACKGROUND AND SETTING

This section provides a description of the Aspen 1 property and surrounding land use, an overview of the area geology and hydrogeology, and proposed re-use of Aspen 1.

2.1 Site Description and Surrounding Land Use

Aspen 1 is located south of Jackson Road (also known and herein referred to as State Route 16 [SR 16]) and west of South Watt Avenue, within the City of Sacramento, Sacramento County, California (Plates 1 and 2). It is comprised of all or portions of 17 parcels totaling approximately 232 acres. The Site is located in a suburban area characterized by extensive commercial and residential development. A brief description of the current land use on nearby parcels is provided below and shown on Plate 3.

- The northern boundary of Aspen 1 is defined by SR 16. Across SR 16 are previously mined (aggregate) vacant lands, an active aggregate operation (Perkins Plant) to the north, and a large residential development to the northeast.
- The eastern boundary of Aspen 1 is defined by South Watt Avenue. Across this north-south arterial road is previously mined (aggregate) vacant land.
- Immediately south of Aspen 1 is the L and D Landfill, which is currently operating as a Limited Class III facility.
- Situated to the west of Aspen 1, from north to south, respectively, is the F-P Landfill, an unclassified landfill and a commercial park. The F-P Landfill is no longer operating and has begun the regulatory process for closure. A small portion of the F-P Landfill is being used as a material recovery/large volume transfer station. The commercial park is located at the very southern portion of Aspen 1.

The majority of Aspen 1 was historically utilized for aggregate mining. In addition, a former nursery (Matsuda Nursery) operated from as early as 1981 until 2007 on land owned by Teichert Aggregates (Teichert). This land was located in the northeast corner of the Site.

Due to changes during mining and subsequent backfill operations, the current topography at Aspen 1 varies from information obtained from previously published maps (e.g., 1992 United States Geological Society [USGS] topographic map). According to Wallace Kuhl & Associates 2009, Inc. in its report entitled, *Preliminary Geotechnical Engineering Report, Aspen 1 Project*, dated September 2, 2009, the ground surface at the Site ranges from about 12-feet above mean sea level (msl) to 50-feet above msl.

Existing land uses on Aspen 1 currently include silt drying beds that are used to collect fine grained material washed from Teichert's gravel mining and aggregate operations. These beds are also used to dry and consolidate the fine materials for use as in-place fill material. In addition, the site supports a conveyor and associated wash ponds in addition to agricultural farming operations that are occurring in the southwest portion of the Site.



2.2 Geology and Hydrogeology

Geology

Aspen 1 lies within the Sacramento Valley, a large, relatively flat, elongated, north-northwest-trending, asymmetric trough, bounded to the east by the Sierra Nevada mountain range and the west by the Northern Coast Ranges. Predominant physiographic features of the valley include the river channels and floodplains of the southward-flowing Sacramento River and the westward-flowing American River.

Exposed in the areas of the Site that have not been disturbed by mining operations are Pleistocene-age unconsolidated alluvial deposits of the Riverbank Formation. These alluvial deposits consist of a wide range of silty to sandy fine- and coarse-grained gravels, gravelly sand and silt, and minor fine-grained sediments. Within the Sacramento area, the Riverbank Formation is a heterogeneous assemblage of buried stream-channel and flood deposits comprised of interbedded clays, silts, sands, and gravels. Sediments within this sequence may contain both localized and extensive hard pan horizons (California Department of Water Resources [DWR], 1978).

Underlying the Riverbank Formation is reportedly the Laguna Formation, an older sequence of Pliocene-age sediments similar in composition to the overlying Riverbank Formation. Sediment of the Laguna Formation is comprised of consolidated silts and arkosic sands, which grade into coarser-grained sands and gravels depth (DWR, 1978). To the west, the Laguna Formation grades laterally into the Tehama Formation along the axis of the valley. The maximum thickness of the Laguna Formation is approximately 400-feet; this formation is reportedly underlain by the Mehrten Formation of lower Pliocene to upper Miocene age.

Locally, because mining in the area has exposed the soils to 50- to 65-feet below the ground surface (bgs), the geology is well known. In the un-mined areas near the Site, the unsaturated soil zone from the land surface to the first encountered groundwater table (approximately 50 to 60 feet bgs [-20 to -30 msl]) can generally be described as follows (SCS Engineers [SCS] 2009):

- Fine silt or silty clay with sand stringers
- Cobbles and heavy gravel
- Fine silt or silty clay, siltstone or clay
- Alternating beds of fine silts and clay with beds of sands and occasional gravel stringers.

These cobbles and heavy gravel were the target of much of the mining operations that occurred on Aspen 1 as well as the surrounding properties. It has been noted by many investigators that this cobble layer is still present at many locations including beneath both the F-P and L and D Landfills. SCS (2009) noted that the gravel, where it has not been mined out, is coarser than surrounding soils, laterally continuous, varies in thickness from a few feet to about 30 feet, with a base elevation ranging from 0 feet to -13 feet msl. The depth to this cobble unit varies depends upon the extent to which it was mined and the overlying disturbed or undisturbed surface elevation. This cobble unit is discussed further in Section 3 of this document, along with maps that illustrate its thickness and occurrence.



Hydrogeology

The Site is located within the Sacramento River Hydrologic Basin as defined by the DWR (1978). Groundwater of usable quality occurs in the Pliocene- to Pleistocene-age unconsolidated sediments of the Riverbank, and coarse-grained sections of the Laguna and Mehrten Formations. Some production wells do withdraw water from the floodplain deposits; however, these wells typically produce from the deeper coarser-grained units below. Aquifer units comprising the shallow coarser grained sediments of Pleistocene to Recent age are generally unconfined or locally confined. At depth, in older Pleistocene to Pliocene material, aquifer units are typically confined beneath impermeable clays and volcanic mudflows. The underlying Eocene marine sediments are impermeable or contain saline or brackish water and are not used for groundwater production (DWR,1978).

Groundwater in the Site vicinity is reported to occur at approximately 75-feet below the undisturbed ground surface, according to published regional groundwater maps (County of Sacramento, 2003). However, based on historical groundwater table measurements of three on-site groundwater monitoring wells, MW-1 through MW-3, owned by Teichert, located along the southwest boundary of Aspen 1 (Plate 3), unconfined groundwater is encountered in the immediate vicinity of the Site at an average depth of about 50- to 60-feet bgs. Groundwater elevations measured in wells MW-1 through MW-3 have ranged from -17.73-feet below msl (in well MW-1 in June 2006) to -25.47-feet below msl (in well MW-3 in October 2005). The groundwater flow direction in the Site vicinity is generally to the south-southeast.

2.3 Proposed Re-Use

The proposed re-use plan for Aspen 1 is shown on Plate 3 and provided in Appendix A, which illustrates that the western boundary of Aspen 1 is contiguous to the F-P Landfill, while the southern boundary of Aspen 1 is contiguous to the L and D Landfill. Proposed land uses on Aspen 1 along the common border with the F-P Landfill, starting from the north and moving south, include low density residential, open space, a park and an urban farm.

Along the southern boundary of Aspen 1, adjacent to the L and D Landfill, proposed land uses include (from west to east) an urban farm (which may include a limited number of residential units as well as farm structures), mixed use residential and an elementary school (Appendix A). A small rectangle property located in the southeast corner of the Site will include proposed high-density residential. The western boundary of the planned high density residential site is immediately adjacent to the L and D Landfill.

Current elevations on Aspen 1 near both landfill boundaries range from 30- to 40-feet msl. The anticipated finished elevations shown on the re-use grading plans are expected to range from 22- to 32-feet msl along the boundaries of the landfills.



3.0 LFG AND INDUSTRY STANDARDS

This section provides an understanding of the concerns associated with landfills, the presence and generation of LFG, and the industry standards related to management of LFG. This background information is provided to assist in the discussions which follow in subsequent sections of this report. F-P and L and D Landfills have different designs, operational histories, as well as varying regulations that apply to each facility. Specifically, F-P Landfill is an unclassified, unlined landfill that is no longer in operation and beginning the process of closure under state and local regulations. L and D Landfill is an operating construction and debris (C&D) landfill that is operating under federal, state and local regulations.

General Description

Landfills have evolved to highly engineered state of the art containment systems. Typically, older landfills were designed by excavating a hole or trench, filling the excavation with waste, and covering the waste with soil. In most instances, the waste was placed directly on the underlying soils without a barrier or containment layer (liner). When the waste reached a predetermined height, a final cover of soil was placed on top and sometimes vegetation was planted.

Modern landfills and landfill regulations are specifically designed to protect human health and the environment by controlling water and air emissions. Liquid containment within a modern landfill results from a combination of the liner and the leachate collection system performing complementary functions to prevent groundwater contamination. Liners prevent leachate and gas migration out of the landfill.

Liner systems are typically constructed with layers of low permeability, natural materials (compacted clay) and/or synthetic materials (high-density or low-density polyethylene). The leachate collection system removes the liquid contained in the liner. A typical leachate collection system may consist of (from bottom to top) a perforated leachate collection pipe placed in a drainage layer (gravel), a filter blanket, and a leachate collection layer.

Waste is placed directly above the leachate collection system in layers. Delivered waste is placed on the working face that is maintained as small as possible to control odors and vectors. Heavy, steel-wheeled compactors move the waste into the working face to reduce the waste's volume. Regulations require that at the end of each day, the waste is covered with six inches of soil or an alternative daily cover (foam, tarps, incinerator ash, compost) to control vectors, odors, fires, and blowing litter.

Once the landfill has reached its permitted height, the landfill is closed and engineered to prevent water infiltration by installing a low permeability cap similar to the liner system. The final cap can be comprised of a compacted clay and/or synthetic material. A granular drainage layer is placed on top of the low-permeability barrier layer to divert water off the top of the landfill. A protective cover is placed on top of the filter blanket and topsoil is placed as the final layer to support vegetation.

Landfill Gas Generation

LFG generated from landfills consists primarily of methane, carbon dioxide and smaller fractions of non-methane organic compounds (NMOC's) consisting of numerous other gases including nitrogen, oxygen and ammonia produced by the biodegradation of organic matter. NMOC's can



also include very low concentrations of VOCs that are typically associated with wastes that have been placed in the landfill. By volume, LFG typically contains 45 to 60 percent methane and 40 to 60 percent carbon dioxide with the other NMOC/VOC gases comprising only small amounts of the total percentage. Biodegradation is the result of the activity of microorganisms that are found naturally occurring in both wastes and soils. Although the processes by which LFG is generated are similar at all landfills, considerable variability will exist between landfills in the amount of LFG generated, the composition of the gas and the gas generation rate. Generally, more recently buried waste (i.e., waste buried less than 10 years) produces LFG, and at a higher rate, through bacterial decomposition, volatilization, and chemical reactions than does older waste (buried more than 10 years). Peak gas production usually occurs from 5 to 7 years after the waste is buried.

One of the most significant factors controlling waste degradation is moisture content. Capping of a landfill to reduce moisture infiltration will therefore also reduce the rate of LFG production and waste degradation. The presence of liners and caps also may inhibit the movement of LFG. Caps can inhibit the upward vertical movement of landfill gas and promote lateral migration unless movement is constrained by liner materials.

Waste composition affects both the LFG generation rate and the total amount of LFG produced per unit of waste. Wastes containing higher biodegradable organic content, such as food waste, wood and paper, will produce more LFG than more inert material such as concrete, bricks, plastic and glass. Typical municipal waste-products found in former landfills such as food and yard debris contain high amounts of biodegradable material that can result in high levels of LFG generation. As is discussed in Section 5 of this report, the type of materials contained within F-P and L and D Landfills is not typical of what is found within municipal solid waste (MSW) landfills and are expected to have a lower potential to generate LFG.

LFG emissions to the atmosphere can occur via upward vertical migration through the surface cover of a landfill and/or at perimeter locations around a landfill through a combination of lateral and vertical migration. LFG migrates from areas of higher pressure to areas of lower pressure, driven by subsurface and atmospheric pressure gradients. Higher pressure conditions are created within the waste mass of a landfill when LFG generation is taking place. Meteorological conditions can also affect the migration of LFG. Relative changes in barometric pressure may accentuate LFG pressure gradients in the subsurface around landfill sites resulting in an increase in vertical and lateral gas migration, and a concomitant increase in the potential for vertical escape of emissions to the atmosphere.

The three main factors which influence the migration of LFG include:

- Diffusion: Diffusion is the natural tendency for gases to have a uniform concentration in a given space. This tendency means that gases will move from areas of high concentrations to areas with lower gas concentrations.
- Pressure: LFG can create areas of high pressure when movement is restricted by compacted refuse or soil covers. Movement of gases from areas of high pressure to areas of lower pressure is known as convection. As more gases are generated, the pressure in the landfill increases, usually causing sub-surface pressures in the landfill to be higher than either the atmospheric pressure or indoor air pressure.
- Permeability: LFG will also migrate according to where the pathways of least resistance occur. Permeability is a measure of how well gases and liquids flow through connected



spaces or pores in refuse and soils. Dry, sandy soils are highly permeable (many connected pore spaces), while moist clay tends to be much less permeable (fewer connected pore spaces). LFG will tend to move through areas of high permeability (sand or gravel) rather than through areas of low permeability (areas of clay or silt). Landfill covers are often made of liners and/or low-permeability soils, such as clay and/or flexible membranes. LFG in an unlined, covered landfill, therefore, may be more likely to move horizontally than vertically. In a fully-lined landfill, the liner material will inhibit horizontal migration of the methane.

LFG under a landfill surface generally tends to expand and fill the available space, so that it moves, or "migrates," through the available pore spaces within the refuse and soils covering of the landfill. The natural tendency of LFG components that are lighter than air, such as methane, is to move upward, usually through the landfill surface. Upward movement of LFG can be inhibited by densely compacted waste or landfill cover material. In an unlined landfill, when upward movement is inhibited, the gas tends to migrate horizontally to other areas within the landfill or to areas outside the landfill, where it can resume its upward path.

Migration of LFG from an unlined landfill can be expected to occur laterally and vertically along preferential pathways where higher permeable native soils or fill are present, or along buried utility corridors backfilled with coarser material or aggregate than surrounding soils. Lateral LFG migration can be enhanced during winter months as vertical gas escape routes are inhibited by wetter soils. Similarly, at landfills where impermeable covers, engineered caps or asphalt surfaces have been constructed the potential for lateral migration of LFG beyond the boundaries of the landfill site can be enhanced although the resulting decrease of infiltrating moisture from impermeable caps would support lower organic degradation rates.

In a fully lined landfill horizontal movement of LFG is constrained by the liner, and if not capped LFG movement would be vertically upwards. Landfills that are fully lined after closure must have LFG extraction and recovery systems to prevent the build-up of LFG within the landfill cells.

Since October 1979, federal regulations promulgated under Subtitle D of the Resource Conservation and Recovery Act (RCRA), which regulates the siting, design, construction, operation, monitoring, and closure of municipal solid waste (MSW) landfills have required controls on migration of LFG. These regulations focus on methane and do not address carbon dioxide and the other components of landfill gas (NMOC's). In 1991, the EPA issued standards for landfill design and performance that apply to landfills active on or after October 9, 1993. The standards require methane monitoring and establish performance standards for methane migration control. Monitoring requirements must be met at landfills not only during their operation, but also for a minimum period of 30 years after closure. Not all landfills, such as construction and demolition (C&D) landfills, are subject to the requirements of Subtitle D and are permitted under State and Local regulations. While L and D Landfill is considered a C&D landfill, as noted in the California Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDRs), is subject to 40 CFR Subtitle D regulations. F-P Landfill is an unclassified landfill and is subject to state and local regulations and not subject to Subtitle D.

In California the California Code of Regulations (CCR) Title 27 implements the requirements of Subtitle D and, accordingly, landfills regulated under Title 27 are required to control LFG by establishing a program to periodically check for LFG emissions and control off-site migration. Relevant to this analysis, landfill owners and operators must ensure that the concentration of methane gas does not exceed the lower explosive limit (LEL) for methane at the facility boundary



(5 percent by volume in air). This limit on methane reflects the fact that methane is explosive within the range of 5 percent to 15 percent concentration in air. If methane emissions exceed the permitted limits, corrective action (i.e., installation of a landfill gas collection system) must be taken. The Title 27 requirements focus on methane and do not consider the other components of LFG. As will be discussed later, both the L and D and the F-P landfills are regulated under Title 27.

In 1996 the EPA promulgated 40 CFR Part 60 Subpart Cc which regulates emissions from MSW landfills that includes NMOCs. These regulations require that MSW landfills that are intermediate sized (2.5 million cubic meters in volume) with NMOC emissions equal to or greater than 50 megagrams per year submit a NMOC emissions estimate and implement and operate a LFG collection and control system. These standards were to be implemented by May 2000. It appears that the Sacramento Air Quality Management District (SMAQMD), as outlined in their Authority to Construct Engineering Evaluation dated September 7, 2007, has ruled that the requirements of 40 CFR Part 60Cc do not apply to the L and D Landfill because the landfill is not a MSW. While there is no specific reference available, it appears that SMAQMD does apply the rules to F-P Landfill (Dunn, 2012) through their Rule 485 which implement the federal regulations.

LFG extraction and recovery systems are also subject to local air district regulations as promulgated by the Sacramento Air Quality Management District (SMAQMD). SMAQMD has regulations in place that address landfills as sources of VOCs and NMOC's. Based on review of various documents regarding F-P Landfill, the SMAQMD has cited that SMAQMD Rule 201 would be applicable to the F-P Landfill. SMAQMD Rule 201, Section 122, requires that other equipment (the landfill) deemed by the Air Pollution Control Officer and which would emit any pollutants without the benefit of air pollution control devices, more than 2 pounds per day, be permitted by the SMAQMD. Pollutants in this circumstance would include VOCs/NMOC's. While SMAQMD has ruled specifically that Rule 201 would apply to F&P Landfill, it has not been shown that the F-P Landfill emits more than 2 pounds per day.

As noted above, SMAQMD also has Rule 485 which imposes requirements on landfills specifically related to NMOC's. The purpose of Rule 485 is to limit NMOC emissions from existing Municipal Solid Waste (MSW) Landfills by implementing provisions of CFR Part 60 Subpart cc Emission Guidelines and Compliance Times for MSW Landfills. According to Dunn (2012), even though F-P Landfill is an unclassified and non-municipal waste landfill, the SMAQMD has referenced District Rule 485 as applicable to the landfill. The threshold for criteria emissions is 2 lbs/day for a respective 24 hour period (per Rule 201). The criteria emissions are, at a minimum, as NMOC or VOCs. A Best Available Control Technology (BACT) assessment is a part of the permit application process for any LFG venting or recovery system and would be required to assess if a permit is necessary. If source testing shows that VOCs will be emitted in excess of regulatory limits the SMAQMD would impose BACT requirements to mitigate those emissions. Potential technologies to address emissions may include carbon absorption and/or flares, similar to what is operating at the L and D Landfill. As described previously, the SMAQMD has ruled that the provisions of CFR Part 60, Subpart Cc do not apply to L and D Landfill but the LFG extraction system is permitted by SMAQMD.

Closure and Post-Closure Maintenance

The closure and post-closure maintenance requirements set forth in Subtitle D and CCR Title 27 establish the minimum requirements with which owner/operators must comply once the landfill stops receiving waste and begins closure. Owner/operators also are required to continue monitoring and maintaining the landfill once it is closed to protect against the release of hazardous



constituents to the environment. The closure standards require owner/operators to install a final cover system to minimize infiltration of liquids and soil erosion. The final cover requirements outlined in Subtitle D and/or Title 27 vary depending upon if a landfill is lined or unlined. The RWQCB, through its WDR permitting process, can also implement closure and post-closure requirements.

Post-closure maintenance activities consist of monitoring and maintaining the waste containment systems and monitoring groundwater to ensure that waste is not escaping and polluting the surrounding environment. The required post-closure maintenance period is a minimum of 30 years from site closure, but this can be shortened or extended by the director of an approved state program as necessary to ensure protection of human health and the environment. Specific post-closure care requirements consist of maintaining the integrity and effectiveness of the LFG gas monitoring system.

As described above both landfills are subject to the Closure and Post-Closure Maintenance requirements of Title 27 and F-P Landfill has begun the closure process.

Financial Assurance

All owners/operators of municipal solid waste landfills regulated under Subtitle D and Title 27 are required to demonstrate that they will be able to pay for the required closure and post-closure maintenance activities, and any corrective action that might become necessary due to releases of contaminants into the surrounding environment. These financial assurance demonstrations ensures proper long term financial planning by owner/operators so that sites will be closed properly and maintained and monitored in a manner that protects human health and the environment. L and D Landfill is subject to these requirements.

As noted at the beginning of this section F-P and L and D Landfills have different designs, operational histories, as well as varying regulations that apply to each facility. In summary, the F-P Landfill is an unclassified, unlined landfill that is no longer in operation and beginning the process of closure under state and local regulations. The state and local regulations include Title 27 as implemented by the recently adopted WDR from the RWQCB with oversight by the RWQCB, CalRecycle, the LEA (Sacramento County), along with SMAQMD air regulations. L and D Landfill is an operating construction and debris (C&D) landfill that is operating under federal, state and local regulations that includes Subtitle D, Title 27 (as implemented by a WDR), and SMAQMD air regulations with oversight by the RWQCB, CalRecycle, the LEA (Sacramento County) and SMAQMD.



4.0 ADJACENT LANDFILLS

This section provides a description of the F-P and L and D Landfills along with site specific information regarding the generation and movement of LFG at these facilities. For the purposes of discussions provided in this section and in following sections the term LFG is presumed to be the components of LFG that primarily include methane and CO₂ that can include trace amounts of NMOCs including trace concentrations of VOCs. In addition, it is presumed that movement of the individual components of LFG (methane, CO₂, NMOCs and VOCs) within the subsurface are similar.

4.1 Florin Perkins Landfill

Operational History and Construction

The F-P Landfill is an inactive unclassified landfill located east of Florin Perkins Road, south of Jackson Highway and north of Fruitridge Road (Plates 2 and 3). The landfill is unlined and 106 acres in size within 210 acres of land. The layout of the landfill is shown on Plate 3 and in Appendix B. Until recently, the landfill operated under existing WDR and Monitoring and Reporting Program (MRP) Order No. 95-196 put in place by the RWQCB. The RWQCB recently adopted WDR and MRP Order No. 2013-0042 and supercedes Order No. 95-196. In addition to recently adopted WDRs, the landfill operated under a Conditional Use Permit issued by the City of Sacramento and a Solid Waste Facilities Permit (SWFP) exemption issued by the Sacramento County Environmental Management Department, (hereafter referred to as the Local Enforcement Agency or LEA) in 1997. In March 2004, the LEA rescinded the SWFP exemption after new solid waste regulations (i.e., 14 CCR Section 21565(b)(3)) were adopted requiring the facility to be permitted as a construction and demolition inert (CDI) waste disposal facility. No CDI permit was ever issued for the facility because the landfill ceased operations in 2005. Currently only a small portion of the property is used as a materials recovery facility / transfer station.

The landfill began operations in April 1993 (Dunn Environmental [Dunn], 2011) and continued until 2005. Prior to the adoption of WDR 95-196, the landfill was operated under WDR 89-202 and was an unclassified landfill (Dunn, 2011). The language in WDR 95-196 describes the waste classification of the facility as an "inert waste" landfill as defined by 27 California Code of Regulations (CCR) and 23 CCR, Chapter 3, Chapter 15, Section 2524(a) (Dunn, 2011). The WDR indicates that the landfill accepted inert solid wastes as defined by Title 27. Inert wastes include concrete, dirt, construction and demolition debris, asphalt and, according to Title 27 regulations, can also include insignificant quantities of decomposable wastes. While the landfill was in operation, inspections by the RWQCB and the LEA, identified the presence of decomposable wastes near the active fill areas of the landfill and suspect disposal of non-inert waste, resulting in multiple fines for operational practices and violations (Dunn, 2011).

Since 2005, the RWQCB levied a California Water Code (CWC) Section 13267 Order (CWC Order) against the property and the LEA imposed a Directive (LEA Directive) against the property requiring amongst other items, characterization of the facility including waste types, locations, assessment of LFG and leachate, and soil and groundwater impacts, and implementation of corrective actions, if needed. Since the adoption of the CWC Order and the LEA Directive, that includes SMAQMD imposing Rule 201 upon the landfill, a series of investigations have been conducted to fulfill the requests of the RWQCB and the LEA to characterize and understand the F-P Landfill.



Extensive investigations were conducted by Dunn Environmental to comply with the CWC Order and LEA Directive and the investigations are summarized in Dunn's December 2011 Evaluation Monitoring Program (EMP) Report (Dunn, 2011). Investigation activities included backhoe test pits, geophysical surveys, cone penetrometer tests, drilling of borings, and the installation of permanent and temporary LFG probes. As part of the investigations, soil gas probes were installed within the interior portions of the landfill to assess for the presence of LFG and the presence of the VOC trichlorofluoromethane (TCFM), a refrigerant. TCFM has been found in groundwater in low concentrations in the groundwater monitoring wells located on Aspen 1. The presence of TCFM was discussed in the previous Environmental Assessment Report (NCE, 2011) and is not the focus of this discussion. However, the TCFM investigation included the collection of LFG data and the findings of these investigations as it relates to LFG are discussed further.

Also in response to the CWC 13267 Order and Engineering Feasibility Study (EFS) and a Corrective Action Plan (CAP) were prepared. As part of the EFS various alternatives to address the TCFM in groundwater were considered including groundwater pump and treat, active LFG extraction, passive LFG extraction, and landfill closure. The EFS identified that the most feasible alternative was landfill closure and passive LFG controls. According to the CAP, the proposed LFG controls are to be implemented in two phases over a period of a three year period in advance of closure of the landfill. This is discussed further in the following sections of this report.

As noted previously, the most recent regulatory action imposed upon F-P Landfill is the adoption of WDR Order No. R5-2013-0042. This order imposes the relevant requirements of Title 27 to the F-P landfill, including provisions and schedules for the implementation of LFG monitoring and control systems, as necessary, and the placement of caps over the various landfill units.

Surrounding Soil Types

The undisturbed soil types identified around the perimeter surrounding the landfill are similar to those described in Section 2.2, including the presence of the cobble layer (Dunn, 2011). Appendix C provides a map showing the thickness and distribution of the cobble layer above -10-foot msl and cross-sections prepared by Dunn (2011). As shown on the maps and in the cross-sections, the greatest thickness of this layer at the F-P Landfill is located adjacent to the southern boundary of the F-P Landfill and up to 30 feet of this cobble layer may be exposed to landfill material in this area (Dunn, 2011). The continuity of this cobble beneath Aspen 1 is presumed.

Waste Areas and Types

The Dunn Environmental investigations identified four primary waste management units called the North, South and East Waste Management Units and the fourth being the Central Processing Area (Appendix B). The East Unit is located along the eastern portion of the F-P Landfill adjacent to the park and low density residential uses proposed for Aspen 1. Only a small portion of the South Unit is adjacent to Aspen 1, and is adjacent to the planned park area. The North Unit is located within the central portion of the F-P Landfill.

The waste thickness within the North Unit ranged from 18- to 44-feet with the base of the unit ranging from 2.5-feet to 24.6-feet MSL. Waste thickness within the East Unit ranged from 23.5- to 33-feet and the base elevation varying from 7.8 to 18.5 feet MSL. The South Unit waste thickness was found to be 26- to 38-feet thick and range in base elevation from 5.5- to 14.6-feet MSL. The thickness of the fill within the Central Processing Area was found to range from 5- to 11-feet with the base of the fill occurring at approximately 20 feet msl.



Wastes encountered within the North, South and East units during the Dunn investigation (2011) were primarily inert materials and soils (mostly silts and clays) along with asphalt shingles, wood and metal construction demolition waste, concrete, plastic sheeting, and miscellaneous demolition debris. A LFG investigation was conducted in 2001 by AES North and included the excavation of three test pits to 25-feet (Dunn, 2011). The wastes encountered during that investigation were similar and included concrete, rebar, asphalt, roofing shingles, foam, insulation, fence posts, and roots that were part of the soil (Dunn, 2011). The amount of decomposable material identified during the AES investigation was estimated to be 2 to 3 percent. The majority of the materials encountered with the Central Processing area was found to contain clean fill such as soil, concrete and asphalt (Dunn, 2012).

Landfill Gas

As noted above, a LFG investigation was conducted in 2001 by AES North and included the excavation of three test pits to 25-feet in the South Unit. During the investigation 12 vapor points were completed to depths ranging from 16- to 25-feet. Methane levels in those points located outside the waste, ranged from 0.07 to 1.35 percent. Methane concentrations from the probes within the landfilled areas ranged from 0.1 to 0.95 percent. Subsequently, three nested perimeter LFG probes (GP-1, GP-2 and GP-3) were installed along the southern boundary of the South Unit in 2002 (Dunn, 2011), however, it does not appear that methane data were collected in 2002 from GP-1, GP-2 and GP-3 at that time. The locations of these perimeter LFG probes are shown on Plate 3 and in Appendix D.

Dunn's (2011) EMP work also included the installation of seven temporary in-waste vapor probes to investigate for the presence of methane within the waste. The temporary probes were screened in the field using portable LFG meters. While the data set is not extensive (Appendix B) the field screening concentrations were generally very low ranging from just over 1% by volume of air to a maximum of 25% by volume of air methane concentration within the LFG samples.

Following testing of the temporary probes 8 permanent in-waste probes (VP-1 through VP-8) were installed (Appendix B). Construction details are provided in Appendix E. As outlined in the Dunn's December 2012 Landfill Gas Monitoring and Control Plan (Dunn, 2012b), the methane data collected to date from the permanent in-waste probes suggests the following:

- North Unit: methane concentrations have ranged from 2.4 to 37.5 percent by volume of air with an average concentration of 17.5 percent by volume since 2011, with a trend towards generally stable concentrations;
- East Unit: methane concentrations have ranged from 0.4 to 21 percent by volume of air with an average concentration of 14 percent of air and with stable trends;
- South Unit: methane concentrations have ranged from 2.2 to 46 percent by volume of air. The average concentration has decreased to 27 percent by volume of air since 2011 and methane concentrations are generally stable between 10 and 40 percent by volume of air.

VOCs were also detected in the in-waste probes in the Southern Fill Area. According to the RWQCB recently adopted order (RWQCB, 2013a) the RWQCB indicated that the vapor probes in the Southern Fill Area show low to trace concentrations of VOCs in LFG, primarily consisting of acetone and TCFM (Freon 11). These data are presented in Appendix E.



To comply with the LEA Directive, Dunn Environmental also installed perimeter LFG probes as part of the 2011 EMP. The purpose of the probes is to assess the presence of the components of LFG that includes concentrations of methane, oxygen and CO₂ at the landfill perimeter. As discussed in Section 3, methane detections in perimeter LFG probes above 5 percent by volume of air requires implementation of systems to control LFG. The initial findings for the LFG investigation showed that the detections of methane were either non-detectable or near non-detectable in the majority of probes, including those adjacent to the East Unit which abut Aspen 1. The highest reported concentrations of methane were found in the perimeter probes adjacent to the South Unit. While the methane concentrations reported in the probes adjacent to the South Unit were below the 5 percent trigger level, the LEA required additional evaluation of LFG for the purposes of understanding the presence of TCFM and its presence in groundwater. These additional investigations were conducted through 2012 and 2013. The resulting perimeter LFG monitoring network includes 13 perimeter LFG locations and a total of 28 perimeter LFG probes. The locations of the perimeter LFG probes are shown on Plate 3 and in Appendix B. The resulting F-P Landfill perimeter LFG monitoring network has a maximum probe spacing of 1,000-feet.

The perimeter LFG probe construction details are listed in Appendix D. Seven of the perimeter LFG probes are triple completion probes, one perimeter LFG gas probe is a double completion and five are single completion probes. The deepest perimeter LFG probe is located near the deepest known waste, which is approximately at an elevation of -2.5 feet msl. The majority of the perimeter monitoring probes are screened within the cobble unit described previously, including probes GP-3D, GP-13M and GP-13D, where the higher concentrations of methane have been detected.

Testing of the perimeter 23 LFG probes (GP-1 through GP-13) in December 2012 are summarized in the data tables from the January 22, 2013 Landfill Gas Monitoring Reports (Dunn 2012 and 2013) that are included in Appendix E. Methane detections in the perimeter probes (GP-1 through GP-13) over 11 events since 2011 (Appendix E) have typically been non-detect for methane, or when detected, methane was reported at concentrations below 0.5 percent. Of the 28 probes, only three (GP-3D, GP-13D and GP-13M) have shown concentrations of methane in excess of 1 percent, and only infrequently above 2 percent. GP-3D is located adjacent to the central portion of the southern boundary of the South Unit. GP-13M and GP-13D are located adjacent to the central portion of the western boundary of the South Unit. Five of the perimeter LFG probes (GP-1, GP-5, GP-6, GP-7 and GP 12) where methane has been non-detect or reported at concentrations below 0.5 percent are located along the eastern boundary of F-P Landfill between Aspen 1 and the F-P Landfill.

VOC's were also detected in the perimeter probes at low concentrations and included detections of acetone, benzene, carbon disulfide, chloroform, cyclohexane, TCFM (Freon 11), Freon 12, hexane, xylenes, tetrachloroethane and toluene. According to the RWQCB recently adopted order (RWQCB, 2013) the RWQCB's characterization of the VOC detections in the perimeter wells to suggest that TCFM (Freon 11) has been detected up to 8,800 ppbv (GP-2D in 2006) with the higher concentrations generally detected during the wet season (compared to the dry season). The RWQCB also characterized the detections (RWQCB 2013) to indicate that the concentrations of landfill gas constituents detected in the other perimeter gas probes have generally been low or non-detect.



Landfill Gas Controls

The December 2012 Landfill Gas Monitoring and Control Plan (Dunn, 2012b) describes that the findings of the landfill gas monitoring events indicated that the perimeter LFG probes do not exceed regulatory levels (5 percent methane) suggesting that a LFG control system is not required under 27 CCR Section 20939 (Dunn, 2012b). However, because low levels of VOCs in soil gas can impact groundwater, the findings of the Evaluation Monitoring and LFG monitoring events do suggest that a passive vent system would be beneficial as a means to mitigate possible VOC impacts to groundwater. A passive system (versus an active LFG extraction system) was recommended because the F-P Landfill does not generate sufficient gas to support a landfill gas flare (Dunn, 2012b). According to Dunn (2012b), the passive system will be designed to be upgraded to an active system should that be necessary in the future and vented gas will be treated with Best Available Control Technology (BACT) as required to comply with SMAQMD requirements.

According to the recently adopted Order (RWQCB, 2013) the LFG control plan is to install passive LFG controls at the fill areas prior to landfill closure as an interim corrective action measure to address landfill gas concerns. The LFG controls will consist of passive LFG vents and associated monitoring probes installed in two phases over a three year period in advance of landfill closure, beginning with the Southern Fill Area.

The first phase of the interim LFG controls at each unit will be installed in areas where existing vapor probes indicate the highest concentrations of methane. The second phase will be installed, as necessary, based on the results of monitoring the first phase for a one-year period. The second phase will consist of any additional vents and monitoring probes necessary for interim LFG control prior to closure of the landfill unit. LFG monitoring will be conducted in accordance with the Landfill Gas Monitoring and Control Plan (LGMCP) as approved by the LEA and incorporated into the MRP into the RWQCB recently adopted Order. Upon installation of final cover per the landfill closure schedule, the interim vents would be incorporated into a long term LFG control system constructed in accordance with the final closure plan.

Construction and operation of the passive LFG vents will be subject to local approvals and/or permits, including those from SMAQMD which may require that F-P Landfill obtain a permit to construct and operate the vents, depending on the results of air emissions testing. Presumably, this is the enforcement of SMAQMD Rules 485 and 201 that regulate facilities that emit more than 2 pounds per day of VOC's and require the application of BACT.

Landfill Closure

A Final Closure and Post-Closure Maintenance Plan has been prepared (Dunn, 2012) and submitted to the RWQCB and LEA. NCE understands that this plan is currently being revised and adoption of a new WDR pending that outlines required closure dates. While the Final Closure and Post-Closure Maintenance Plan focuses on the South Unit it appears that the pending revised WDR requires closure of all three units with capping of the South Unit by the Spring of 2016 and closure of the East and North Units by January 2020. The plan also discusses, and it is presumed the final adoption of any new or future WDR's will require that implementation of the Final Closure and Post-Closure Maintenance Plan will include design for the final cover; grading, drainage and erosion control; slope stability, final cover vegetation, and on-site structures.



4.2 L and D Landfill

Operational History and Construction

L and D is a permitted limited Class III landfill located near the corner of South Watt Avenue and Fruitridge Road. The landfill is bound to the south by Fruitridge Road, to the east by commercial/office buildings and vacant land, by a railroad line followed by warehouses near the southern portion of the west boundary, commercial buildings along the north portion of the western boundary. The northern boundary of the west portion of the landfill is bounded by commercial buildings, and at the northern most boundary by vacant land associated with the Site (Plate 2). The L and D Landfill is a permitted facility operating under WDR/MRP Order No. 2012-0107 issued by the RWQCB and subject to RCRA Subtitle D.

The facility is 177 acres in size with the landfill area utilizing approximately 157 acres. The landfill is constructed within a formerly excavated gravel mine. The landfill is divided into two major waste management units that include LF-1 and LF-2, as shown on Plate 3 and in Appendix F. LF-1 is unlined and consists of the 49-acre East Pit and the 43-acre West Pit. LF-2 is 64-acres and is located north of the East Pit and consists of the North Area Expansion Unit (SCS, 2012). LF-2 is a lined unit and has seven modules. A map illustrating the layout of the landfill is presented in Appendix F. The lower liner material at LF-2 consists of a geotextile encased geosynthetic clay liner and the upper component is a 60-mil high-density polyethylene flexible membrane liner and meets the requirements of 27CCR and Federal Subtitle D regulations (ASEI, 2011).

During gravel mining activities on the L and D site, approximately 50-feet of material was excavated to an elevation of about 0 MSL. Approximately 25-feet of clay, silt and fine sand overlaid approximately 25-feet of cobbles and gravel. After removal of the mined material, the finer grained materials were returned to the excavation (SCS, 2009). Disposal activities began in 1976 in LF-1 West Pit and expanded to the LF-1 East Pit in the 1980s and 1990s. LF-2 was designed, permitted, and constructed when disposal activities moved to LF-2 in 1996. LF-2 is currently active (SCS, 2013) and operations are expected to continue until 2016, or until operations move south into unit LF-1.

Assuming an approximate base elevation of -10 feet msl within LF-1 (SCS, 2009) and a final built-out elevation of 55- to 95-feet msl, the waste thickness in LF-1 will range from approximately 45- to 105-feet at end of the landfill operations. For LF-2, assuming an average base elevation of approximately -10 feet msl (ASEI, 2011) and final built-out elevations ranging from 40- to 95-feet msl, the thickness of waste within LF-2 will range from approximately 50- to 105-feet at the conclusion of operations. Current waste thicknesses are much less.

Surrounding Soil Types

The soil types surrounding the landfill are described in Section 2.2. Of note is the presence of the cobble unit that is unsaturated and near the bottom of the L and D Landfill (SCS 2009).

Waste Types

The facility is classified as a Limited Class III facility and wastes permitted to be received at the landfill include construction and demolition wastes, paper, concrete, dirt, asphalt, green waste, wood, tires, plastic, non-friable asbestos and other miscellaneous materials that are predominately inert. The landfill is not permitted to take putrescible matter other than green waste. Table 3 from



the Joint Technical Document for Revision of SWFP and WDRS Amended in November 2011 is attached in Appendix G and lists the types and amounts of waste accepted at the landfill since 1977. Review of the table shows that the predominate materials accepted are concrete, dirt and asphalt and according to SCS (2009) comprise 89 percent of the waste stream. While green waste, wood, paper and miscellaneous waste (a portion of which is assumed to be decomposable) have increased over the years they typically represent less than 15 percent of the total waste stream in any given year.

Landfill Gas

The LEA required upgrades to the LFG monitoring system beginning in 1990 with the detections of methane in excess of 5 percent in several perimeter probes. Consequently, perimeter LFG probes have been in use since 1990. The perimeter LFG probes are located outside of the buried waste and are designed to detect the presence of methane around all areas of the landfill perimeter (SCS, 2009). The spacing between gas monitoring wells ranges from 230- to 900-feet in all areas where off-site structures are located within 1,000-feet of buried waste.

To date, there are 20 LFG probes associated with the L and D Landfill. The well locations are shown in Appendix H. Probe construction details are also provided in Appendix H. Of the 20 wells, 5 are located offsite and 15 located onsite. The LFG probes are listed as LFG Probes A through K, M1, and N through U. Of the 20 probes, 14 are triple and 6 are single completion probes. All the single completion probes are completed within the cobble layer and all but six of the multiple completion probes have the deepest probe completed within the cobble layer, which is found between the approximate depths of 25- and 50-feet bgs (SCS, 2009).

Specifically, wells A, B, C, D, and E are triple completion wells located offsite along the north perimeter of LF-1 in the vicinity of Warehouse Way. Wells T and U are triple completion wells located onsite along the same area. Well F is a triple completion well located on the western boundary of LF-1. Wells G, H, I, J and K are single completion wells located along the southern perimeter of LF-1 in the vicinity of Fruitridge Road. Well N is a single completion well located along the eastern perimeter, along with Wells M-1 and O, which are triple completion wells. Wells P and Q are triple completion wells located along the Northern perimeter of LF-2. Wells S and T are triple completion wells located on the western perimeter of LF-2, in the vicinity of Warehouse Way. The triple completion gas-monitoring wells are installed pursuant to CCR, Title 27, Section 20925.

According to the ASEI report (2011), in 1990 methane was found in several perimeter gas probes at concentrations above 5 percent. Beginning in 1990, and continuing through 2010, L and D Landfill responded by constructing a perimeter methane migration control system. Currently, the LFG migration control system has effectively eliminated methane from the perimeter and methane is not detectable at any point on the landfill perimeter (ASEI, 2011). Review of the gas monitoring results from the third quarter of 2012 support this statement. The review indicated that no methane was detected in any of the perimeter probes that were monitored (SCS, 2012). A summary of the LFG results through 2009, along with the data tables for the fourth quarter sampling data for 2012 are provided in Appendix I, which are consistent with a finding that methane is not detectable at any point on the landfill perimeter.

The presence of VOCs are routinely monitored for in the perimeter LFG probes on a quarterly basis. Monitoring results are typically tested using field screening equipment that includes a Minirae 2000 photoionization detector (PID) and includes only some analytical testing for specific compounds which appears to be on a semi-annual basis. Review of quarterly PID readings from



the LFG perimeter probes shows concentrations of total VOCs ranging from non-detect (0) to 200 parts per million by volume, the average readings amongst all the probes are routinely below 1 part per million by volume. Analytical testing of a sample from LFG probe MP-R (high) collected in December 2012 had reported concentrations of Freon 12, cholormethane, vinyl chloride, chloroethane, TCFM, acetone, carbon disulfide, 2-butanone, benzene, 4-methyl-2-pentanone, and tetrachoroethene. At the time the sample was taken the total VOC reading from the PID was 4.2 parts per million by volume. Similarly, a reading of 200 parts per million by volume was measured in LFG Probe MP-D (mid) in April 2012 and a sample was collected for laboratory testing. The analytical report indicated no reported concentrations of VOCs were detected in that sample.

Landfill Gas Controls

Subsurface gas migration is controlled by an active system consisting of 67 vertical extraction wells and 4 leachate collection and recovery system (LCRS) laterals. The original perimeter extraction wells, EW-1 through EW-28 and EW-5A, are single completion wells screened across the cobble unit. The wells were installed in the early 1990s. While still connected to the extraction system, because extraction from the interior wells has been sufficient for LFG control to keep methane at non-detect along the perimeter, these wells are used primarily to monitor for LFG at the perimeter, with little, if any, vacuum applied to the wells.

In 2005 and 2007, construction of Phase 1 and Phase 2 of the LFG extraction system was completed. Phase 1 (NW-1 through NW-13) included 20 wells (9 double completion and 2 single completion) and 2 LFG monitoring wells. Phase 2 (NW-14 through NW-26) included 18 LFG extraction wells (5 double completion and 8 single completion as well as the LCRS connections). All vertical wells were drilled inside the landfill mass of LF-1, the unlined portion of the landfill. The double completion wells (two extraction wells in a single borehole) are screened with one well drawing gas from the main body of refuse, and a deeper well drawing gas from the vadose zone under the landfill in order to control any gas that has escaped the refuse prism. As part of the construction of the Phase 1 and Phase 2 system, a new collection piping system was installed, along with a new blower and a carbon filtration system.

In 2010, an enclosed flare replaced the carbon filtration system. The enclosed flare features a variable drive blower and a gas analysis control panel that monitors gas flow and combustion through the flare. The carbon system has its own blower and remains in place as a backup in the event that the flare is off line for any extended period. Both the flare and carbons systems run on electricity as their power source.

The LFG extraction well field is currently tuned to maximize the collection of LFG both from within the refuse (source control) as well as from the vadose zone outside and under the landfill (migration control). Gas collection is designed not only for methane collection, but also for control of VOCs within the LFG. Monitoring wells are tested for both methane and VOCs, and both parameters are used for making adjustments to the system to optimize collection of gas. This results in an average flow of approximately 350 scfm through the flare at the present time, although gas flow and methane content of the gas will vary with time. Each active well in the field is "tuned" periodically for optimum gas extraction.

The landfill gas generating potential for the landfill was estimated (ASEI, 2011) to be 67 cubic feet per minute (35 million cubic feet per year). Presently, the LFG extraction system can collect 2000 standard cubic feet per minute.



It is noted here that SCS (2009), recognized early that the portion of the cobble unit between the underlying groundwater and the landfill units is an important feature with respect to the lateral movement of LFG and controlling LFG migration and is the preferential pathway for gas migration in the vicinity of the landfill (SCS, 2009). SCS (2009) also noted that extraction of LFG from the cobble unit quickly rendered methane undetectable in the monitoring probes located along the north side of LF-1 that tap this unit, and over time also removed the methane from the overlying fine-grained formation where it is present around the perimeter of the landfill.

Landfill Closure

Closure of the L and D Landfill includes the placement of final cover over the entire landfill in phases, starting at the north end of the landfill (adjacent to south perimeter of Aspen 1) and progressing south. Final cover will be placed over solid waste, and consist of the following components, from bottom to top:

1. A soil foundation layer
2. A geosynthetic clay liner for Phases 1 through 6 (lined portion of the landfill)
3. A flexible membrane over the entire landfill (40-mil thick LLDPE over Phases 1-6 and 60-mil thick LLDPE over Phases 7-12)
4. A 2-foot thick erosion control layer for Phases 1-3 and 5; a 1-foot minimum layer for Phases 4 and 6-12.

Final cover for Phases 1, 2 and 3 of L and D Landfill, which are located just north of the southern boundary of the Aspen 1 area is scheduled to be installed no later than October 31, 2016, according to Section 2.4 of the Preliminary/Partial Final Closure & Postclosure Maintenance Plan prepared SCS Engineers (SCS, 2012), originally issued October, 2011, with the last revision issued on June 12, 2012. This document has been approved by the RWQCB and CalRecycle. Final Cover for Phases 4 and 5 is scheduled to be installed no later than October 31, 2017, and no later than October 31, 2018 for Phases 6 and 7. Appendix H of the closure plan (SCS, 2012b) presents the Partial Final Closure Plan for Phases 1, 2, 3 and 5. Within Section 1.4.3.2 of that document, SCS states "The 40-mil LLDPE barrier will eliminate the potential for significant infiltration of moisture in the landfill, and will control and contain landfill gas surface emissions." Drawing 5 presents an anchor trench detail showing how the flexible membrane will be constructed at the outer limits of the landfill. Although not shown, these perimeter terminations are expected to be tied into the perimeter terminations of the flexible membrane bottom liner of the landfill, effectively providing a flexible membrane encapsulation at the western, northern and eastern perimeters of the lined portion of the Landfill. As the progression of landfilling proceeds further south within Phases 7 through 12, final cover placed over these Phases will be seamed to the southern boundaries of flexible membrane installed for Phases 1 through 6, which is expected to create a continuous flexible membrane barrier to upward flow of LFG upon final installation of final cover, scheduled for October 31, 2023.

Upon placement of final cover for Phases 1 through 3, the flexible membrane will be in place at least 1,000 feet south of the northern limits of L and D Landfill. Upon placement of final cover for Phases 5 through 7 (10/31/18), the flexible membrane will be extended to at least 1,000 feet south of the small southeastern segment of Aspen 1.

Once final cover is placed over Phases 1 through 7, landfill gas will be contained at the top and bottom and along the western, northern, and eastern boundaries of the waste mass. During the time frame that Phases 8 through 12 do not have final cover placed, there is the potential for



landfill gas to migrate to the south from the Phases 1 through 7 waste mass into the Phase 8 through 12 waste mass, and eventually escape through the surface of that waste mass. However, most of the landfill gas generated within the Phase 1-7 waste mass, after placement of final cover, is expected that the LFG would be extracted from that waste mass through the LFG recovery system, and destroyed within the landfill gas flare.



5.0 LFG GENERATION AND MIGRATION POTENTIAL

This section discusses the findings presented about each landfill and discusses the potential for migration of the methane in LFG.

5.1 F-P Landfill

LFG Generation Potential

The findings presented in Section 4.0 of this report suggests the F-P Landfill has a low capacity to generate methane in LFG, particularly when compared to a typical municipal solid waste landfill. The characteristics and investigative findings associated with the landfill that support this conclusion include the following:

- Low percentage of decomposable waste identified.
- The landfill has been closed since 2005 and no new waste has been landfilled.
- The methane generating capacity of waste typically reaches its peak within 7 years after placement, final placement of any waste occurred in 2005, suggesting that methane generation should be at or near its peak now.
- The landfill was found to have very low moisture content.
- Existing LFG data collected from in-waste probes indicates the percentage of methane in the LFG is lower than a typical municipal solid waste landfill consistent with the limited decomposable material within the buried waste.
- The buried waste material is relatively low in total volume and in thickness.

The limited generation potential is consistent with the landfill monitoring data as follows:

- Detections of methane in LFG from perimeter probes in the 20 of the 23 LFG probes at the 13 perimeter probe locations are mostly non-detectable, or when detected, below 0.5 percent by volume.
- Detections of methane in the three probes with higher concentrations have never been above 5 percent by volume and typically are less than 2 percent by volume.

The three probes where methane has been detected in the 1 to 3 percent range are located in the vicinity of the South Unit suggesting that this unit may have slightly different methane generating potential than the North and East Unit. The South Unit has the highest methane generating potential and is scheduled to have a passive venting system installed. A small portion of the eastern boundary of the South Unit is adjacent to Aspen 1 in the vicinity of the planned park and approximately 600 feet from planned low density residential or residential mixed use land uses.

The East Unit and North Unit appear to have a low potential to generate methane in LFG. The East Unit is the most proximate waste unit of the F-P Landfill to the Aspen 1 boundary, is located coincident with the planned park and the proposed low density residential land use along its northern reach.

The data show that the F-P Landfill also has the potential to generate VOCs as noted by the low concentrations of these compounds predominately near the Southern Fill Area. However, as noted in the WDR's the concentrations are described by the RWQCB (2013) as "low".



LFG Migration Potential

Currently, as noted previously, perimeter monitoring probes around the F-P Landfill have had limited detections of methane suggesting that horizontal migration methane in LFG is not significant. Considering that methane is being produced at the landfill, as evidenced by the detection of methane within the North, East and South Units up to 50 percent by volume, the lack of significant detections in the perimeter probes suggests that the produced methane is not accumulating and is easily moving, presumably upwards, and venting to the atmosphere through the soil cover and/or the landfill side slope.

While still below the 5 percent trigger level, there does appear to be some accumulation and horizontal movement of methane near the south end of the South Unit as evidenced by the presence of methane in perimeter probes GP-3D, GP-13M and GP-13D at concentrations ranging from 1 to 3 percent. The addition of a passive venting system proposed for the South Unit will provide a more permeable upward vertical pathway for the upward movement of the methane and presumably reduce the concentrations in those perimeter probes. The passive venting system is also expected to be adequate to offset the tendency of the gas to move laterally once the South Unit is capped in the near future. This system is proposed to be constructed in such a manner that active LFG removal can be implemented should the need arise.

While there have been little to no detections of methane in perimeter probes associated with the North and East Units, as discussed previously, the current draft WDR's indicate the passive vents will be established at both these units. These passive vents should further reduce the potential for the horizontal migration of methane.

Also, as discussed previously, a preferential pathway for the movement of LFG is the permeable cobble unit that is laterally continuous. This unit is identified beneath the F-P Landfill and the majority of the perimeter monitoring probes have probes that are screened within this unit, including probes GP-3D, GP-13M and GP-13D, where the higher methane concentrations have been detected. As noted above, with the exception of GP-3D, GP-13M and GP-13D, these probes screened within the cobble unit currently and historically have been reported as non-detectable or very low detections of methane. These data suggest that movement of the LFG is not sufficiently constrained to force it to move horizontally within the cobble unit. When the South Unit is capped, the vertical movement of the methane will be constrained, thus increasing the potential for it to preferentially move horizontally through the cobble unit. However, as noted above, the passive venting system that is currently approved by the RWQCB and the LEA should provide relief and vent the LFG. The approved LFG control measures include ongoing monitoring of the perimeter probes that will provide ongoing measurement of the success of the passive vents.

NMOC Emissions

While there are not specific assessments of emissions of NMOCs such as VOCs from the F-P Landfill, it also appears to not be a significant concern to the regulatory community as no information was identified as part of this LFG Evaluation that indicates there is a regulatory concern at this time. Concerns related to the presence of VOCs in LFG at F-P Landfill are primarily associated with the impacts the VOCs are having on groundwater beneath the landfill, predominately near the southwestern portion of the South Unit. To address the concern that VOCs are impacting groundwater quality, as discussed in the closure strategy for F-P Landfill, a phased closure of the landfill over a three year period (that presumably started in 2013) includes the



installation of passive venting systems to manage LFG. As outlined in the recent RWQCB Order (RWQCB 2013) the construction and operation of the passive LFG vents will be subject to local approvals and/or permits, including those from the SMAQMD, which may require that the Discharger obtain a permit to construct and operate the LFG vents, depending on the results of air emissions testing, which is presumably the enforcement of SMAQMD Rules 485 and 201. These rules regulate facilities that emit more than 2 pounds per day of VOC's and require the application of BACT. Presuming these venting systems are installed and permitted in accordance with the SMAQMD rules and requirements, the migration and fugitive emissions of VOCs should be minimized. Based on our review of the SMAQMD permits for the L and D Landfill, it appears that the permit to construct and the need for the application of BACT includes a risk evaluation component that is based on surrounding land use and site specific data, and if a risk is shown, the SMAQMD will require the use of BACT to reduce that risk to acceptable levels that will not pose a risk to surrounding land uses.

As part of this LFG Evaluation, the risk associated with emissions of VOCs from the F-P Landfill was evaluated for a residential setting using published screening values and comparing those values to site specific LFG probe data. The published screening values used were the California Human Health Screening Levels (CHHSLs), developed by the Office of Environmental Health Hazard Assessment and designed to be protective of unrestricted land use (i.e., residential). The screening risk assessment was conducted by SLR International (SLR, 2013) and their letter report is attached in Appendix J. The goal of the assessment was to evaluate if VOC concentrations detected in soil gas samples from LFG probes could adversely impact the health of people living or working near the landfill through volatilization and subsequent inhalation.

The evaluation considered two chemical inhalation exposure scenarios that include indoor air inhalation which results from direct volatilization from the subsurface through a foundation and into a structure, and outdoor air inhalation, which results from volatilization from the subsurface into ambient air. The screening evaluation considered indoor air inhalation because there are published screening values for chemicals in indoor air. Indoor air inhalation is often of concern due to the relatively enclosed space and lower air turnover inside a building relative to outside. The outdoor air inhalation scenario involves instantaneous dilution with ambient air, and further dispersal of chemical vapors as the air travels downwind. Accordingly, outdoor air inhalation from subsurface volatilization is rarely a concern due to the dilution that occurs within the atmosphere.

SLR conducted a very conservative screening evaluation in which detected VOCs from analyzed landfill gas probes were directly compared with the CHHSL screening levels developed by CalEPA designed to be protective of all land uses (e.g., residences and schools). This screening evaluation conservatively assumed that the development was built directly on top of each landfill, instead of adjacent to them. Therefore, this conservative approach evaluated indoor air inhalation assuming the structures were directly atop the landfill. In reality, the chemicals must first volatilize to ambient air above the landfill and then be transported through the air to the adjacent area and subsequently inhaled. This process incorporates a very high degree of dilution as the vapors mix with ambient air, greatly reducing the potential concentrations to which relevant receptors may be exposed relative to onsite concentrations.

SLR indicates that the conservative screening evaluation provides a simple "reasonable worst-case" estimate of potential exposure to offsite receptors. The rationale used by SLR is that if the results of the screening evaluation, assuming onsite exposure, indicate there is no concern from VOC exposure, then the conclusion must also be true for offsite locations since air concentrations of VOCs emanating from the landfill will be lower than those present in onsite soil gas. The



conservative nature of the assessment is further supported by documentation from the U.S. Environmental Protection Agency (USEPA) indicating that emissions from a point source are instantaneously diluted when entering the ambient air. According to SLR the EPA indicated that just 15 meters away from a point source emission it can be expected that a concentration of a gas would be no greater than about 2% of the emitted concentration and this concentration would drop an additional order of magnitude (i.e., 0.2% of the emitted concentration) at a distance of 200 meters from the source. SLR suggested that, while not precise values, these rule-of-thumb estimates demonstrate that the actual concentrations of VOCs at the proposed offsite development location would be well below any level of potential concern to human health.

SLR used the soil gas sampling data collected at the F-P Landfill between November 2011 and June 2013, as reported by Dunn Environmental (SLR 2013) that included six quarterly events, from the shallow, medium and deep probes at each of the 13 LFG probes locations.

SLR indicated that all detected chemical concentrations are below the CHHSLs except for vinyl chloride at probe location GP-13 (SLR 2013). SLR concluded that with respect to VOC emissions, when considering that (1) the proposed development is not on the landfill but nearby, (2) subsurface soil vapor movement is not likely to be towards the property boundary to the northwest but instead to the southeast, and (3) outdoor air inhalation at offsite locations is not of concern due to atmospheric dilution, vinyl chloride should not adversely affect receptors living or frequenting the proposed development. Since all other chemicals are below CHHSLs (both individually and combined) and do not present a potential exposure issue, the proposed development should not be impacted by VOCs detected in FP Landfill soil vapor.

5.2 L and D Landfill

LFG Generation Potential

The L and D Landfill also has a lower potential for generation of methane in LFG than a typical solid waste landfill because of its lower percentage of decomposable waste. However, its potential is greater than the F-P Landfill because its waste volumes are more significant; it is still operating, and has a higher percentage of decomposable material, including green waste frequently used as alternative daily cover. Existing data also suggests it has methane generating capacity that requires ongoing controls.

This greater methane generating potential manifested itself in the LFG monitoring probes installed around the perimeter beginning in 1990 and ultimately led to the installation of a LFG extraction system. LFG probes installed and monitored beginning in that time frame have had detections of methane above the 5 percent regulatory level in perimeter LFG probes on the north side of the LF-1 West Pit, and in probes located along the southern boundary of the LF-1 West Pit and East Pit, and the eastern boundary of the LF-1 West Pit, all located over 1,000 feet from the Aspen 1 site.

Beginning in 2005, a LFG extraction system was installed and has been upgraded and expanded with efforts continuing through 2010. After operation of the system began, detections of methane in LFG in perimeter probes steadily dropped and have been at non-detectable levels since approximately 2007. The current system has a capacity of 2,000 cubic feet per minute (CFM), well above the estimate generating capacity of the landfill of 67 CFM (ASEI, 2011).



LFG Migration Potential

As noted by SCS (2008, 2009) and ASEI (2011) the preferential pathway for the lateral migration of LFG in the subsurface is through the cobble unit. The source of this methane is presumably from the unlined East and West Pits of LF-1. LF-2 is not suspected as a source because of the liners that prevent the lateral migration of LFG from LF-2. The historical data collected from perimeter LFG probes along the unlined East and West Pits of LF-1 has shown methane detections in excess of the 5 percent by volume trigger level up until 2005, indicate that if left uncontrolled, LFG will move vertical downward and horizontally.

Since those detections beginning in 2005, the LFG extraction system has been constructed and has operated effectively as illustrated by the subsequent findings that show methane concentrations in the cobble unit dropped precipitously immediately upon operation of the LFG extraction system. These data are strong indicators that the preferential pathway for the movement of LFG, when not collected, is the cobble unit. The data also provide good data that suggest that the movement of LFG associated with the LF-1 East and West Pits is well understood and very controllable.

Prior to closure, LFG that is generated within the LF-2 modules that are located just south of the Aspen 1 development will be constrained from migrating vertically downward and reaching the cobble unit and the Aspen 1 property because those units are fully lined. Horizontal migration is also fully constrained along the north, east and west boundary of LF-2, and mostly constrained along the western boundary of LF-2 by the liner within LF-2. These fully lined units within LF-2 also provide lateral containment of the LFG along the northern boundary, the common boundary with Aspen 1, as well as to the west and east, and partially along the south boundary. The preferential pathway will presumably be vertically upward within the LF-2 module where it is vents or is partially captured by the LFG extraction system.

NMOC Emissions

As noted previously, the L and D Landfill also has the potential to generate NMOC emissions such as VOCs as a component of its LFG. Currently, there are presumably some VOC emissions to the atmosphere although discharge of fugitive emissions will presumably decline, and ultimately be mostly eliminated as closure of the landfill progresses and caps are constructed. Because the LFG extraction system is highly focused within, and effective at managing the LFG migration from LF-1, it is presumed that the majority of emissions to the atmosphere are occurring from LF-2.

The presumption that emissions to the atmosphere are occurring is consistent with the Authority to Construct Engineering Evaluation that was conducted and published by the SMAQMD in March 2007 (SMAQMD, 2007) as part of the evaluation for modifications to the LFG extraction system and modifications to the carbon adsorber that treats the VOCs collected by the LFG extraction system. That evaluation included a risk assessment related to the emissions of VOC's from the landfill and from the carbon adsorber. The risk assessment assumptions included a commercial/industrial setting based on the land use around the landfill, and had an assumption that the only component of the VOCs released was tetrachoroethene. Tetrachoroethene was used as a conservative assumption because of its worst case risk value relative to all the other VOCs emitted. SMAQMD concluded that the excess cancer risk under the scenario evaluated was below the 10 in 1 million excess risk that SMAQMD has established as allowable (SMAQMD, 2007). At the time the SMAQMD assessment was conducted the predominant land-use in the vicinity of the



landfill was commercial.

Similar to the evaluation for F-P Landfill, a screening risk evaluation associated with emissions of VOCs was conducted for a residential setting for the L and D Landfill by SLR (2013) and their letter report is attached in Appendix J. The evaluation used the same approach outlined for the F-P Landfill.

SLR used and evaluated the soil gas sampling data collected at the L and D Landfill between Fall 2011 and Spring 2013, as reported by SCS Engineers (SLR 2013). As part of their evaluation SLR noted that during each monitoring event at the L and D Landfill, a photoionization detector (PID) was used to estimate the total VOC vapor mass at each of the several dozen monitoring points (including different depths at each monitoring location). In some monitoring events, the probe with the highest VOC reading was sent to a laboratory for individual chemical characterization. These probes provide an estimate of what could be emitted from the landfill in the absence of active management through the flare. As such, they should be considered representative of what could be emitted from the landfill mass itself (SLR 2013).

Results of this screening indicated that all chemical concentrations are below the CHHSLs (Table 1 in Appendix J) and that the maximum detected VOC concentrations in a representative sampling event was cumulatively below levels of potential concern to human health.



6.0 DISCUSSION AND CONCLUSIONS

6.1 F-P Landfill

The findings associated with the F-P Landfill suggest that the landfill appears to represent a low potential with respect to the generation and migration of LFG. This low risk is supported by the lack of methane detected in perimeter LFG probes above the regulatory limit of 5 percent methane by volume. This regulatory limit is imposed specifically to mitigate the risk to adjacent properties and buildings from landfills.

The lack of detections above the regulatory limit is consistent with the findings for this evaluation that identified:

- The type of waste is not conducive to the production of large quantities of LFG.
- The potential for LFG production is likely at or near its peak.
- The relatively dry nature of the waste.
- The ability of the LFG to vent upwardly versus horizontally.
- The limited lateral migration of LFG as measured by the existing perimeter probes.
- The expected passive venting system to be installed within all three units to further enhance venting reducing the potential for horizontal migration of LFG.
- Current and future regulatory controls associated with closure and corrective actions at the landfill.

The lack of detections of methane above the 5 percent by volume suggests there is also a low risk with respect to the potential for LFG to migrate laterally and accumulate to the extent it poses a risk to the proposed land uses at Aspen 1 based on the following:

- The South Unit is located adjacent to the proposed park and more than 600 feet from the planned residential mixed use and low density residential land uses.
- The East Unit, which is located on the western boundary of Aspen 1 has shown little potential for LFG generation and the horizontal migration of LFG. Along the southern portion of the East Unit, this low risk is further highlighted because the proposed land use is park and open space, providing further separation between the landfill and future land uses on Aspen 1.

As noted previously, the RWQCB adopted the recent order (RWQCB 2013) that imposes specific requirements including the requirements of Title 27. These regulations require that owner/operators while operating the facility, as well as during the closure and post-closure maintenance period, maintain and monitor the landfill, including LFG. The duration of the post-closure maintenance is 30 years during which, it is presumed that the LFG generating potential of the landfill will continue to decline. However, during this period, monitoring of perimeter LFG probes is required, and if methane is detected above the 5 percent by volume trigger level, corrective actions must be taken and are the responsibility of the owner of the F-P landfill. If closure and post-closure criteria are implemented properly the 5 percent trigger level should not be exceeded in perimeter probes and the risk associated with methane should continue to be low.

While there is currently no known issues related to emissions of VOCs from the landfill under



existing conditions, source testing and assessments are to be conducted as part of the landfill closure process and installation of the LFG venting systems. This perspective is supported by the screening risk assessment prepared by SLR. The LEA and the SMAQMD have also imposed Rule 201 and Rule 485, and as such that the LFG collection systems must operate consistent with those rules. Those rules require source testing to assess if VOC emissions exceed appropriate standards and if BACT are required. This regulatory oversight and requirements to install BACT if needed should include and evaluation of a residential setting because of the proposed Aspen 1 land use. If the risks are above acceptable SMAQMD standards it is presumed SMAQMD will impose appropriate BACT upon the landfill's operator. In addition, the landfill operator is required to comply with and follow LEA and SMAQMD rules during the closure and post-closure period, typically 30 years, which provides an additional layer of security.

6.2 L and D Landfill

The L and D Landfill is currently generating LFG and will likely do so well past the time it stops accepting waste. However, in its current condition, with a functioning LFG extraction system, the L and D Landfill is managing the migration of LFG. Presuming continued management of the LFG, the L and D Landfill appears to present a low risk with respect to the migration of LFG to adjacent properties as supported by the lack of methane detected in perimeter LFG probes above the regulatory limit of 5 percent by volume. This regulatory limit is imposed specifically to mitigate the risk to adjacent properties and buildings from landfills.

Enhancing the already established protections afforded by the 5 percent regulatory limit, there are other site specific factors that augment this low risk conclusion that include:

- The Aspen 1 boundary with the L and D Landfill is adjacent to LF-2, which consists of lined modules. Accordingly, the movement of LFG associated within the lined LF-2 modules is constrained by the liner system, and while the cells are not covered, the movement will be vertical and not pose a threat for horizontal migration toward Aspen 1. Once covered the LFG will be captured by the LFG extraction system.
- LFG migration associated with LF-1, the unlined portion of L and D Landfill, is located approximately 1,000 feet from the Aspen 1 boundary. If uncontrolled, the horizontal migration of LFG from LF-1 would move in all directions within the cobble unit. However, to reach the Aspen 1 boundary the LFG would be required to travel beneath or around LF-2 to reach Aspen 1. While this scenario is plausible, the data suggest the shortest distance and more likely route is to move towards the western boundary of LF-1, adjacent to the railroad tracks, and commercial and industrial park. These are the same boundaries of LF-1 where methane concentrations previously exceeded the 5 percent limit prior to the installation of the LFG extraction system.
- The migration pathways of LFG associated with unlined LF-1 are well understood and currently controlled with the LFG extraction system.
- The current LFG extraction system has been operating since 2005 and since its operation there have been no detections of methane in the LFG perimeter probes.
- Future closure plans that include the installation of a complete cover system should enhance the ability for the landfill operator to manage the migration of LFG and maintain



methane below the 5 percent trigger level and to manage fugitive emissions of VOCs.

Management of the LFG migration is dependent upon continued operation of the LFG extraction system. Accordingly, the most likely scenario for the horizontal movement of LFG is if the LFG extraction system was rendered non-operational. While it is difficult to predict what kind of failures of the LFG extraction system could occur, it seems that catastrophic failure of the LFG extraction system for significant periods is unlikely. Because there are redundant systems, it seems unlikely that an equipment failure would result in an extended period of non-operation. A more likely scenario could include electrical disruptions which would render the system being offline for an extended period (one to two weeks) related to a storm event or other unforeseen circumstance. While this scenario has never occurred, should it occur, it is likely that LFG will begin to migrate horizontally, as it has done in the past. As discussed above, the most immediate threat would appear to be, and likely noticed at the facilities immediately adjacent to the boundaries of LF-1 (railroad tracks and existing warehouses), none of which occur within the Aspen 1 property.

In the unlikely event that the LFG extraction system is not operational for an extended period of time (beyond routine maintenance), the potential for LFG to migrate from the unlined units in LF-1 through the cobble unit towards the Aspen 1 property, and then vertically upwards once passing under lined LF-2 is mitigated by the distance from the northern edge of LF-1 to the southern boundary of Aspen 1. This distance is approximately 1,000-feet, which is of sufficient distance to substantially reduce the risk of methane actually reaching the Aspen 1 boundary.

Proposed land uses adjacent to the eastern half of the common boundary between L and D Landfill and Aspen 1 are high density residential at the southeast corner of the property, and residential mixed use and a school. Because the high density residential structures are within 1,000 feet of the unlined portion of the L and D Landfill, and the school and the residential mixed use structures are nearest to the unlined portion of LF-1, they are the most at risk in a scenario where the LFG extraction system is non-operational. While the owner/operator of any permitted landfill has significant regulatory responsibilities to keep the LFG extraction system functioning, to address possible failures that are outside the control of the operator may require an ameliorative strategy to offset that increased risk. The ameliorative strategy for added protection of the re-use facilities adjacent to southeast corner of Aspen 1 could include any one or more of the following:

- Installation of geomembrane systems for planned structures on the high density residential, school site and the multi-family site along the eastern half of the common boundary between L and D Landfill and Aspen 1.
- Provision of a backup power system (portable power generator) for the L and D Landfill.

Also as discussed for the F-P Landfill, the L and D Landfill is a regulated and permitted landfill which requires the landfill to be compliant with provisions of Subtitle D and Title 27. These regulations require that owner/operators while operating the facility, as well as during the closure and post-closure maintenance period, maintain and monitor the landfill, including LFG. The duration of the post-closure maintenance is 30 years during which, it is presumed that the LFG generating potential of the landfill will continue to decline. However, during this period monitoring of perimeter LFG probes is required, and if detected above the 5 percent by volume trigger level, corrective actions must be taken and are the responsibility of the owner.

The L and D Landfill has the added security of financial assurances which are in place to cover the post-closure maintenance period as well as to provide environmental assurances to correct and mitigate releases from the landfill.



As noted previously, under its current operating condition, L and D Landfill also has the potential to generate VOCs as a component of its LFG. Currently, there are presumably some VOC emissions to the atmosphere although the discharge will decline and should ultimately be eliminated as closure of the landfill is implemented. SMAQMD concluded that the excess cancer risk under a commercial scenario was below the 10 in 1 million excess risk that SMAQMD has established as allowable (SMAQMD, 2007). As it relates to future land uses under current operations of the landfill, SLR concluded that, based on the results of their conservative screening evaluation, VOCs sourced from the landfill are not anticipated to adversely affect receptors living or frequenting the proposed development. As closure plans are implemented for the landfill the amount of VOC emissions should be further reduced resulting in further reduced risks.



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PLATES



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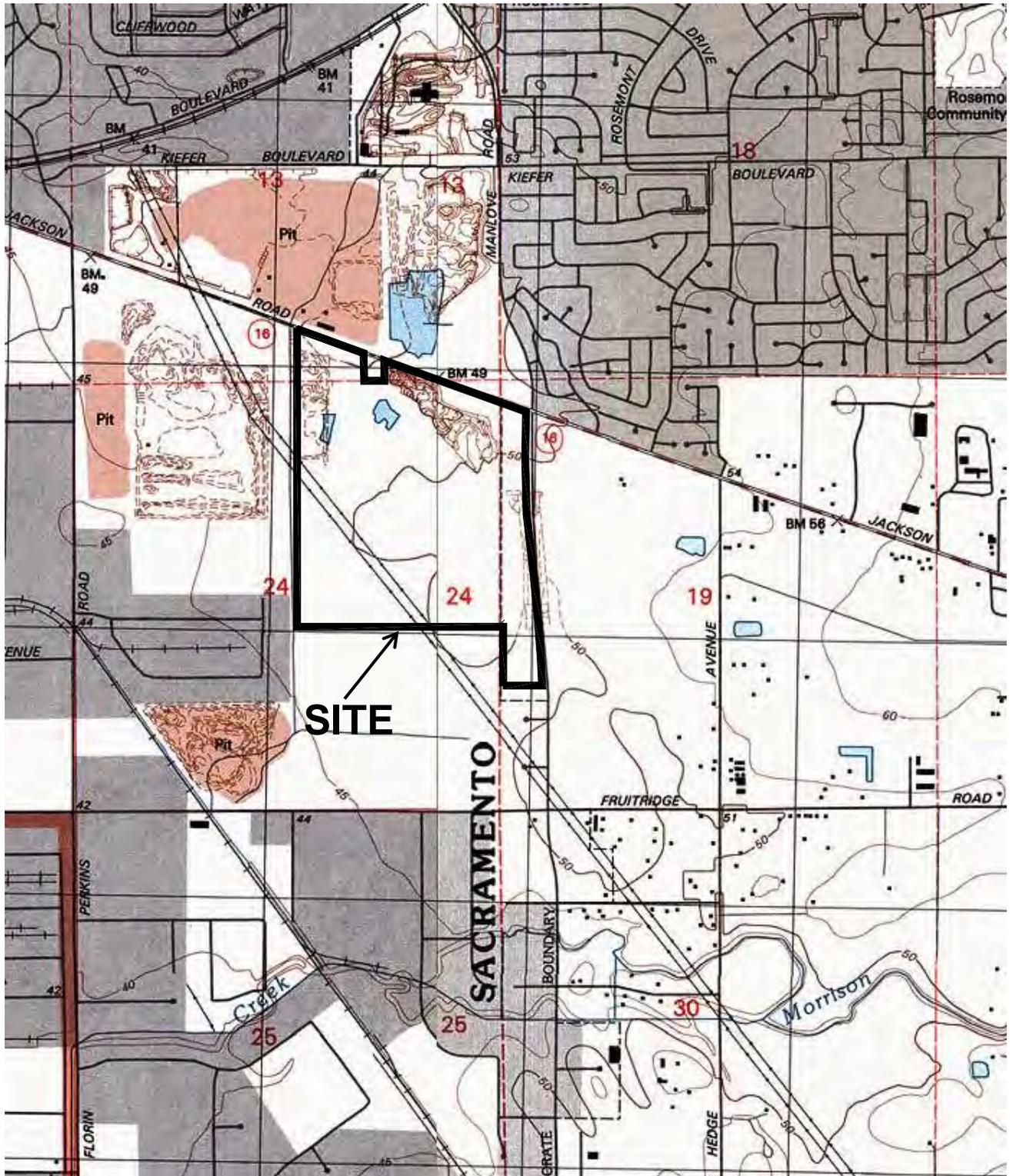
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**Nichols Consulting
Engineers, Chtd.**
8795 Folsom Blvd., Suite 250
Sacramento, CA 95826
(916) 388 5655

Site Plan
Additional LFG Evaluation Report
Aspen 1 Property
Sacramento, California

PLATE
2

DRAWN	FILE NAME	PROJECT NUMBER	APPROVED	DATE	REVISED DATE
YG		A465.06.35		5/13	



0 2000
SCALE: 1 INCH = 2000 FT.

Reference: Carmichael, California,
USGS 7.5 Series Quadrangle, 1992,
revised, 1997.

**Nichols Consulting
Engineers, Chtd.**
8795 Folsom Blvd., Suite 250
Sacramento, CA 95826
(916) 388-5655

Site Vicinity Map
Additional LFG Evaluation Report
Aspen 1 Property
Sacramento, California

PLATE

1

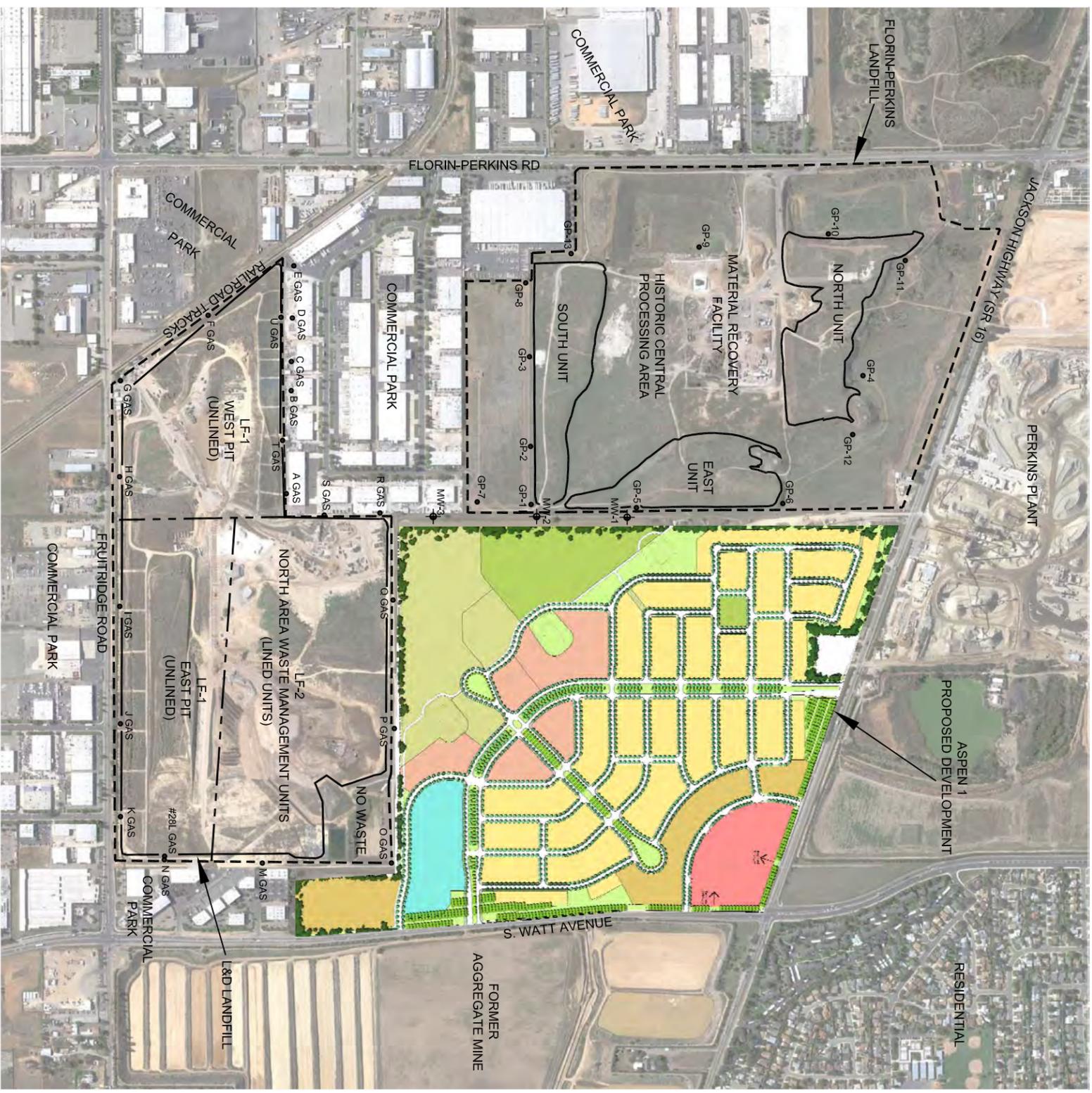
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YVG

PROJECT NUMBER
A465.06.35

APPROVED

DATE
5/13

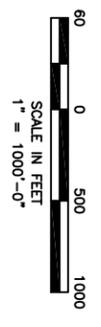
REVISED DATE



ANTICIPATED LAND USE FOR ASPEN 1

LEGEND	Acres (gross)
Low Density Residential	86.0
High Density Residential	19.3
Residential Mixed Use	17.0
Commercial (0.25 - 2.0 PMH)	12.4
School (Underlying Residential Zoning)	9.8
Urban Farm	26.7
Open Space	28.8
Park	16.6
Major Roads	15.7
TOTAL	232.3

- PROPERTY LINES
- LIMITS OF WASTE
- LFG PROBES
- ⊕ MONITORING WELLS



Reference:
Aerial Photograph, Google Earth Pro, 2011

Nichols Consulting
Engineers, Chtd.
8795 Folsom Blvd., Suite 250
Sacramento, California 95826
(916) 388-5655

DRAWN: YG
FILE NAME: _____
PROJECT NUMBER: A465.03.35
APPROVED: _____
DATE: 8/13
REVISED DATE: _____

APPENDIX A

WOOD ROGER'S LAND USE MAP ENTITLED
SPD-PUD SCHEMATIC PLAN, ASPEN 1-NEW BRIGHTON



SPD - PUD SCHEMATIC PLAN ASPEN 1 - NEW BRIGHTON

CITY OF SACRAMENTO, CALIFORNIA

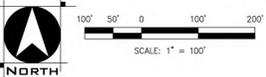
SHEET 4 OF 6
Revised MARCH 2013
Revised March 2012
Revised July 7, 2010
Created June 2010



LEGEND

		Acres (gross)
	Low Density Residential	86.0
	High Density Residential	19.3
	Residential Mixed Use	17.0
	Commercial (0.25 ~ 2.0 FAR)	12.4
	School (Underlying Residential Zoning)	9.8
	Urban Farm	26.7
	Open Space	28.8
	Park	16.6
	Major Roads	15.7
TOTAL		232.3

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



SWA Laguna Beach
Sausalito
San Francisco
Los Angeles
Houston
Dallas
Shanghai

570 Gleneyre Street
Laguna Beach CA 92651
Fax 949.494.7861
949.497.5471

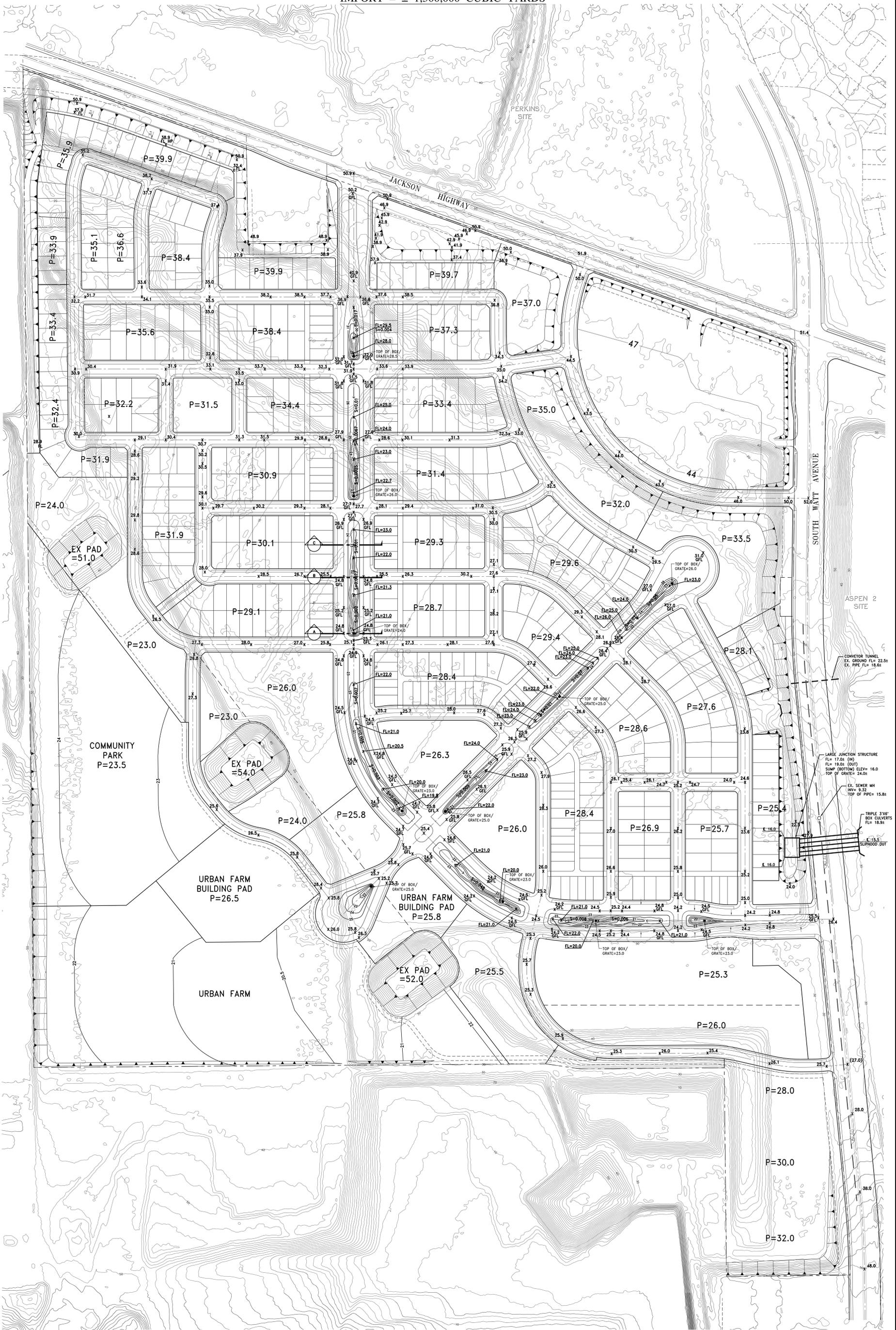
WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C Street, Bldg. 100-B Tel: 916.341.7760
Sacramento, CA 95816 Fax: 916.341.7767

ASPEN 1 - NEW BRIGHTON

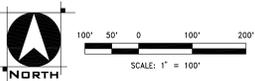
PRELIMINARY GRADING STUDY

CITY OF SACRAMENTO, CALIFORNIA
FEBRUARY, 2011

IMPORT = ± 1,300,000 CUBIC YARDS



PRELIMINARY



APPENDIX B
LAYOUT OF F-P LANDFILL



Florin Perkins Road

Jackson Road

Northern Fill Area

Material Recovery Facility

Historic Central Processing Area

Southern Fill Area

Eastern Fill Area

Aspen MW-1

Aspen MW-2

Aspen MW-3

JRLF MW-2

JRLF MW-1

MW-A
MW-I(D)

SW-1

GP-4

GP-12

GP-11

VP-8

SW-4

GP-10

VP-7

MW-D

SW-2

GP-6

VP-6

GP-9

SW-3

MW-B

VP-5

GP-5



Legend

Monitoring Points

- ⊕ Groundwater
- ⊕ Landfill Gas
- ⊙ Soil-Pore Gas
- Surface Water

Boundaries

- Landfill Units
- - - Site
- · - · Facility

GP-13

VP-2

VP-1

VP-4

GP-8

MW-C

GP-3

MW-G(S)

MW-G(D)

Fence

GP-2

MW-F

GP-1

SW-5

MW-H(D)

MW-H(S)

GP-7

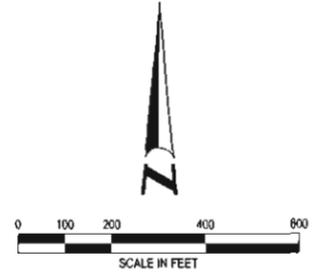
APPENDIX C

THICKNESS AND DISTRIBUTION OF COBBLE AND HEAVY GRAVEL LAYER
AT F-P LANDFILL

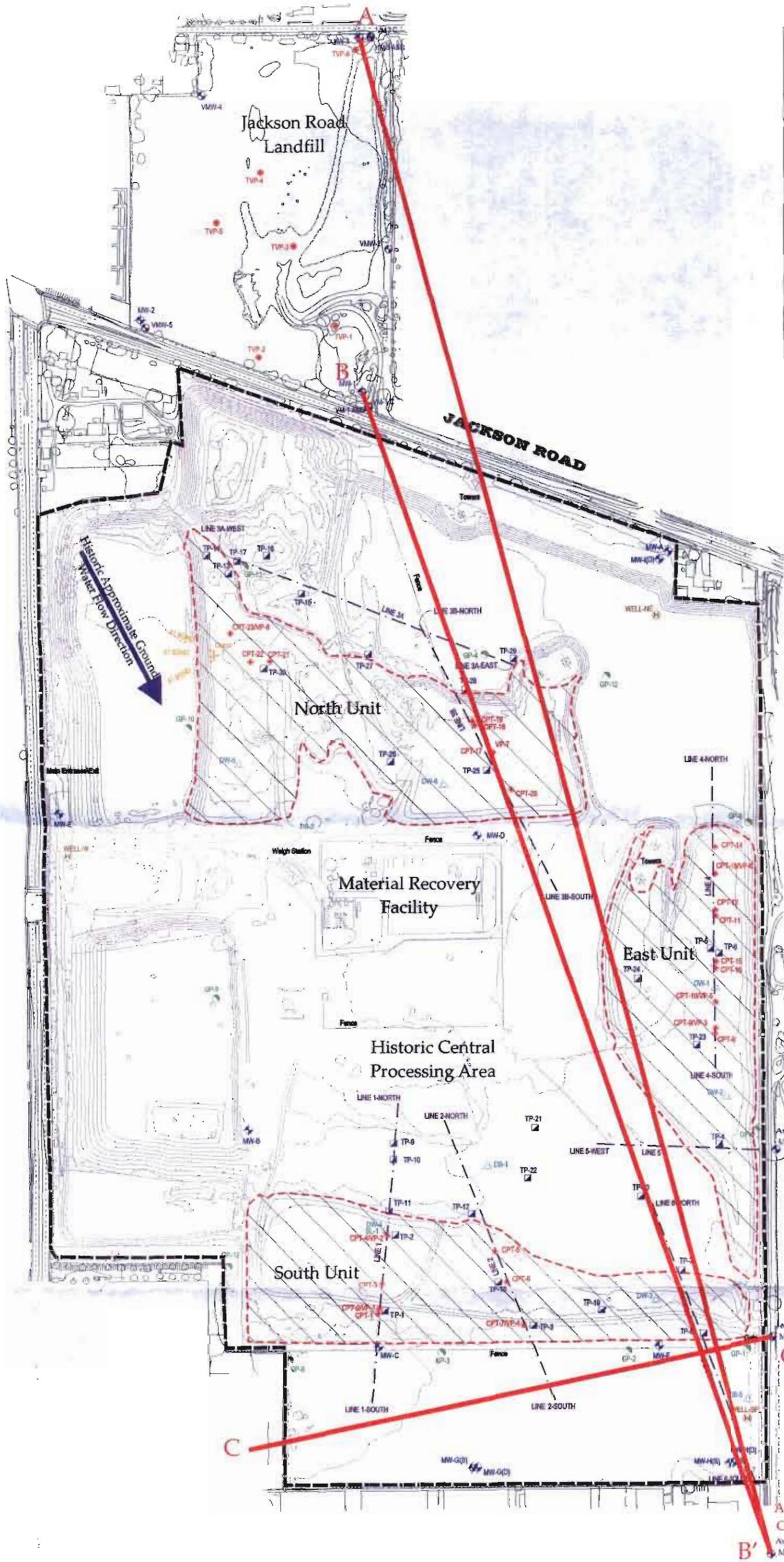


KIEFER BLVD.

- Legend**
- ⊙ Monitoring Well Location
 - ⊕ Vapor Monitoring Well
 - ⊙ Temporary Vapor Probe
 - ⊙ Production Well
 - Geophysical Line
 - ⊙ Test Pit
 - ⊙ Vapor Probe and Cone Penetration Location
 - ⊙ Exploratory Boring
 - Ground Crack
 - ⊙ Gas Probe
 - ⊙ Approximate Limit of Landfill Unit
 - ⊙ Approximate Property Boundary
 - Geologic Cross Section Line



FLORIN PERKINS ROAD



A-A' Cross Section Line
Continues 1970 feet SE

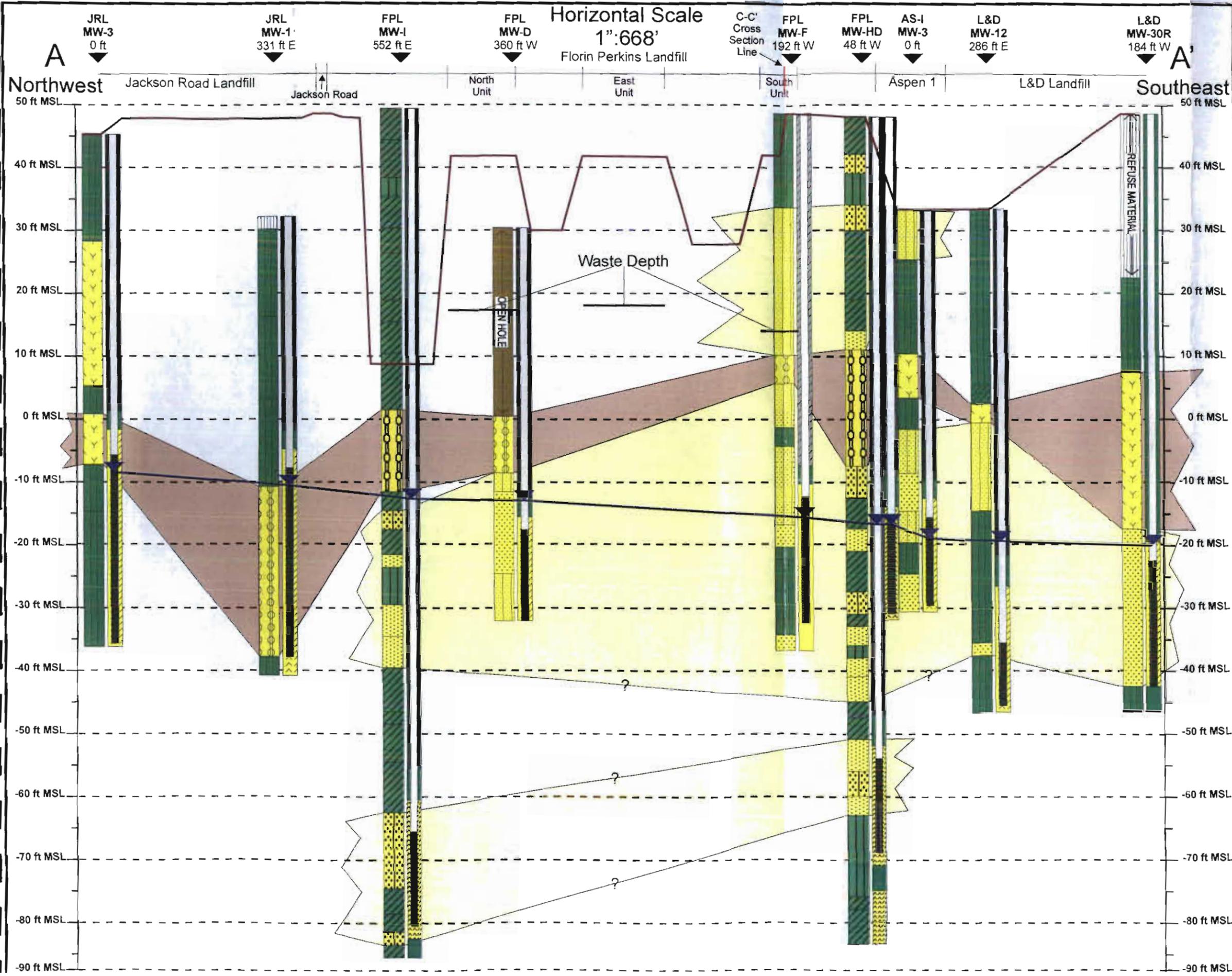
B-B' Cross Section Line
Continues 1970 feet SE

Map adapted from Morrow Surveying, West Sacramento, CA, 11-29-11, Elevation contours are 5 feet intervals



DATE: 12/29/2011
 SCALE: As Shown
 PROJECT NO: 150-05
 DRAWN: CT
 CHECKED: PFD
 FIGURE: 2-1

SITE MAP WITH CROSS SECTION LINES
 FLORIN PERKINS LANDFILL
 SACRAMENTO COUNTY, CALIFORNIA

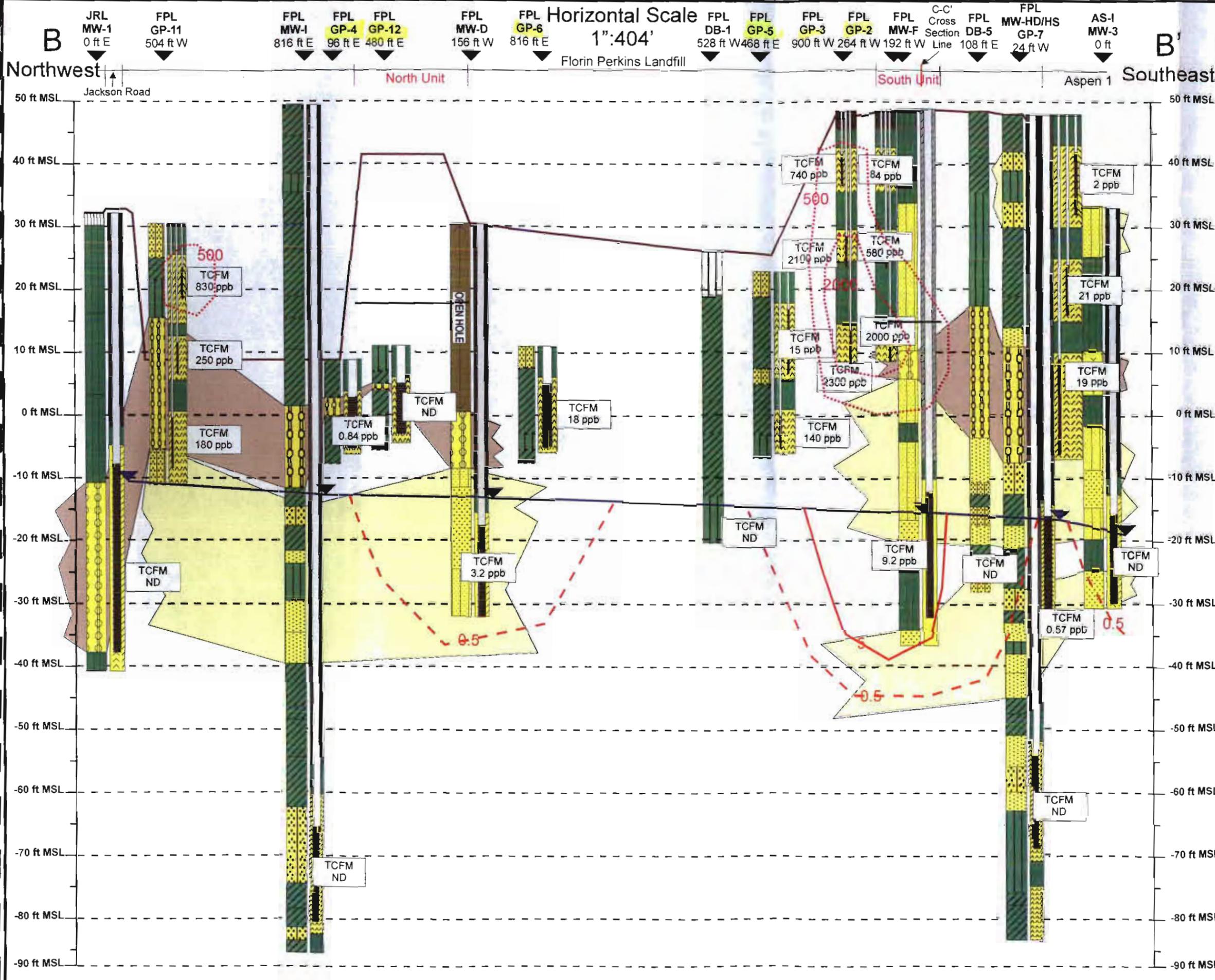


- LEGEND**
- Geologic Log Symbols**
- Silt and Sandy Silt (ML)
 - Clay (CL)
 - Sand (SP)
 - Gravel and Sand (GP/GW)
 - Silty Sand (SM)
 - Gravel and Fines (GM)
 - Fill or debris
- Well Construction Symbols**
- Screen or intake
 - Blank casing
 - Grouted annulus
 - Filter pack
 - Bentonite Seal
 - Water level
 - Base of Waste Elevation
 - Approximate Topographic Profile
 - Sand Unit Correlation
 - Gravel Unit Correlation

SCHEMATIC GEOLOGIC CROSS SECTION A-A'
 FLORIN PERKINS LANDFILL
 SACRAMENTO COUNTY, CALIFORNIA

DATE: 12/09/2011
 SCALE: H 1":668' V 1":15'
 PROJECT NO: 150-05
 DRAWN: CT
 CHECKED: PFD
 FIGURE: 3-1





- LEGEND**
- Geologic Log Symbols**
- Silt and Sandy Silt (ML)
 - Clay (CL)
 - Sand (SP)
 - Gravel and Sand (GP/GW)
 - Silty Sand (SM)
 - Gravel and Fines (GM)
 - Fill or debris
- Well Construction Symbols**
- Screen or intake
 - Blank casing
 - Grouted annulus
 - Filter pack
 - Bentonite Seal
 - Water level
- TCFM Concentration**
- TCFM Concentration
- Ground Water TCFM Contours**
- Ground Water TCFM Contours
- Soil Vapor TCFM Contours**
- Soil Vapor TCFM Contours
- Base of Waste Elevation**
- Base of Waste Elevation
- Approximate Topographic Profile**
- Approximate Topographic Profile
- Sand Unit Correlation**
- Sand Unit Correlation
- Gravel Unit Correlation**
- Gravel Unit Correlation

SCHEMATIC GEOLOGIC CROSS SECTION B-B' AND 4Q11 TCFM DETECTIONS FLORIN PERKINS LANDFILL SACRAMENTO COUNTY, CALIFORNIA

DATE: 12/09/2011
 SCALE: H 1":404' V 1":15'
 PROJECT NO: 150-05
 DRAWN: CT
 CHECKED: PFD
 FIGURE: 3-2

Duma
 ENVIRONMENTAL, INC.

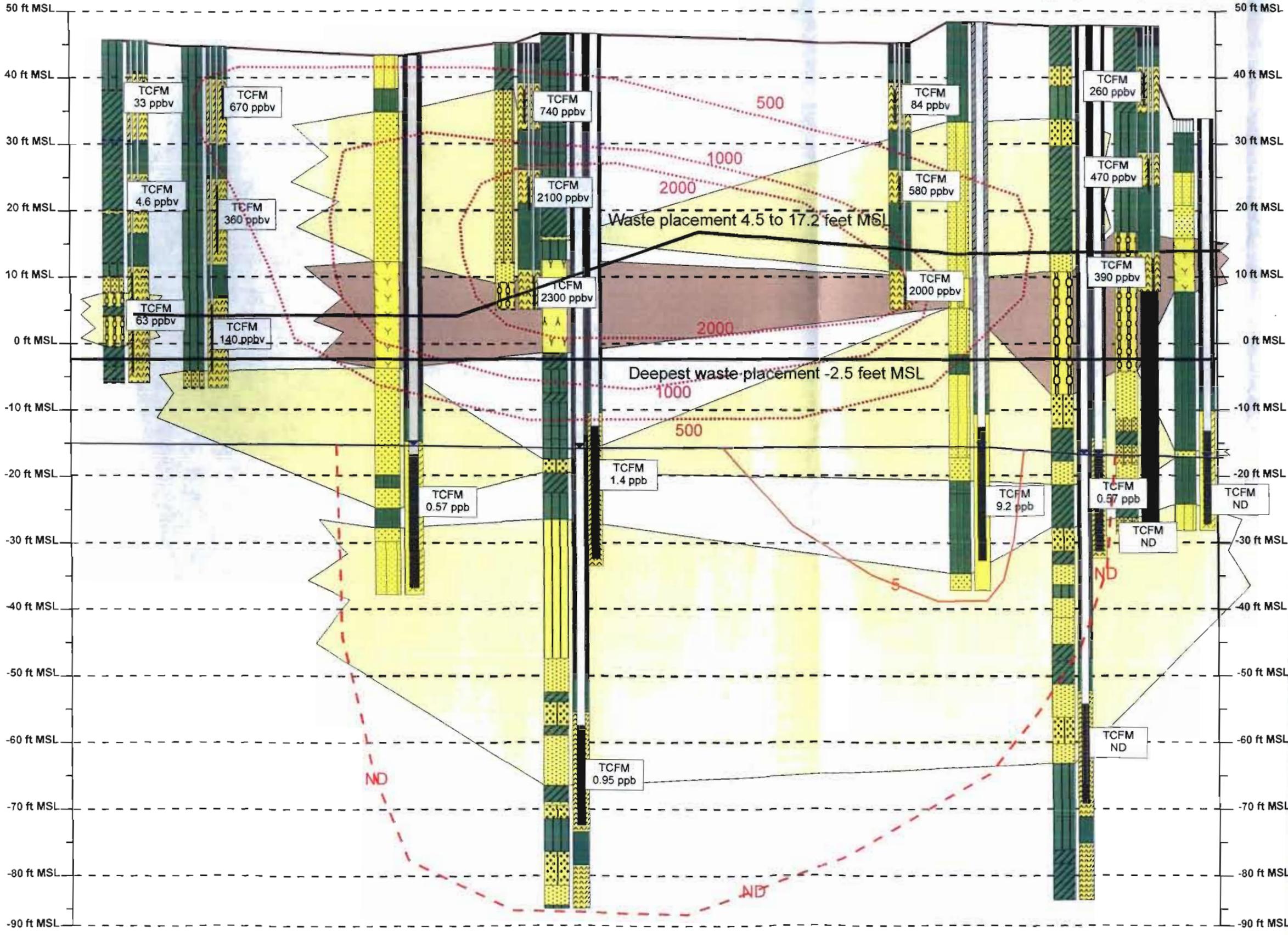
Horizontal Scale 1"=179'

Florin Perkins Landfill
Waste Fill Area to North of Line

Aspen 1

WEST EAST

FPL GP-13 552 ft N
FPL GP-8 288 ft N
FPL MW-C 257 ft N
FPL GP-3 192 ft N
FPL MW-GD/GS 228 ft S
FPL GP-2 60 ft N
FPL MW-F 48 ft N
B-B' Cross Section Line
A-A' Cross Section Line
FPL MW-HD/HS 288 ft S
FPL DB-5 180 ft S
FPL GP-1 20 ft S
AS-1 MW-2 0 ft



- LEGEND**
- Geologic Log Symbols**
- Silt and Sandy Silt (ML)
 - Clay (CL)
 - Sand (SP)
 - Gravel and Sand (GP/GW)
 - Silty Sand (SM)
 - Gravel and Fines (GM)
 - Fill or debris
- Well Construction Symbols**
- Screen or intake
 - Blank casing
 - Grouted annulus
 - Filter pack
 - Bentonite Seal
 - Water level
- TCFM Concentration**
- TCFM Concentration
 - Ground Water TCFM Contours
 - Soil Vapor TCFM Contours
 - Base of Waste Elevation
 - Approximate Topographic Profile
 - Sand Unit Correlation
 - Gravel Unit Correlation

Schematic Geologic Cross Section C-C'
AND 4Q11 TCFM DETECTIONS
FLORIN PERKINS LANDFILL
SACRAMENTO COUNTY, CALIFORNIA

DATE: 12/09/2011
SCALE: H 1"=179' V 1"=15'
PROJECT NO: 150-05
DRAWN: CT
CHECKED: PFD
FIGURE: 3-3

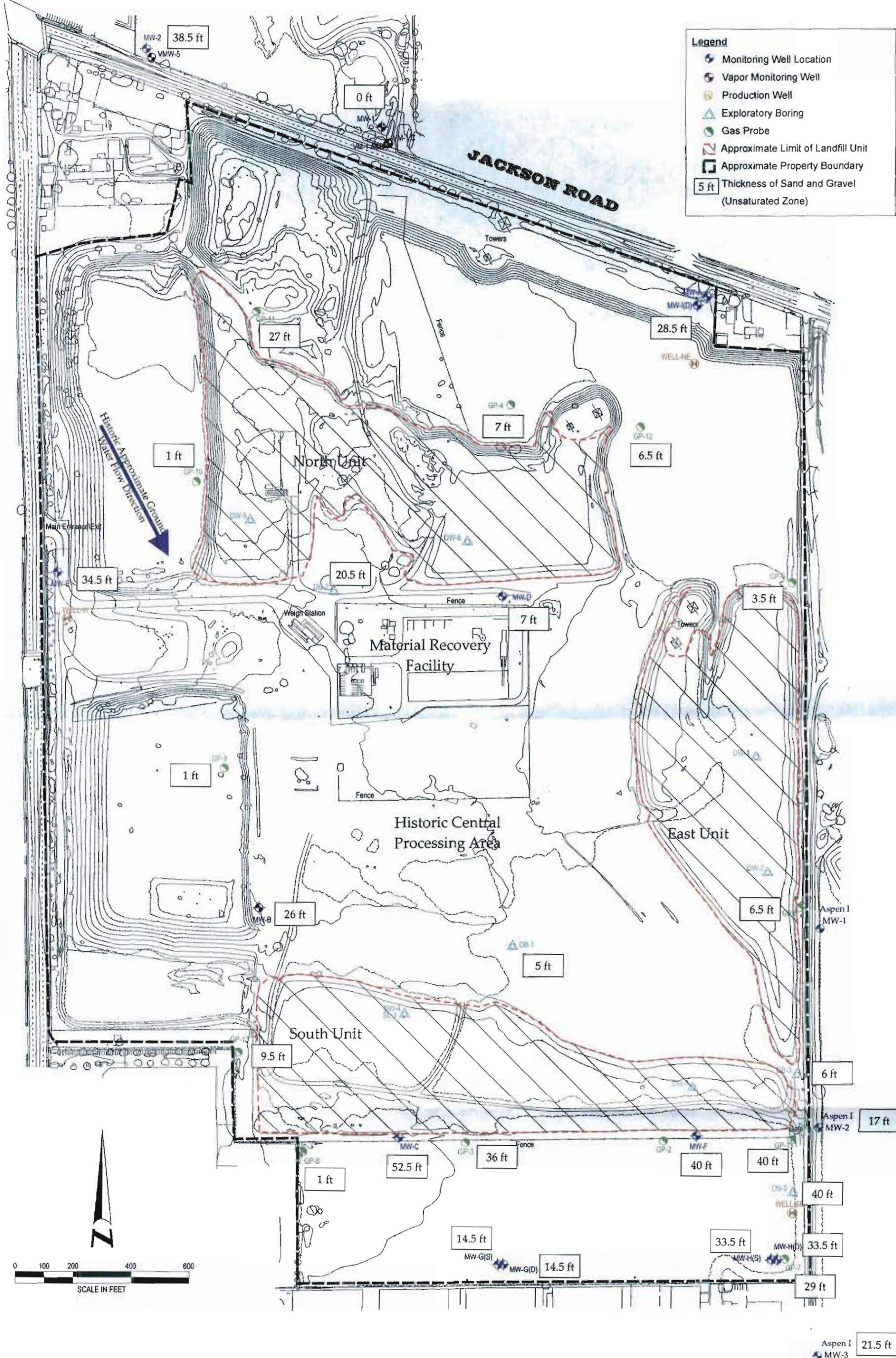


FLORIN PERKINS ROAD

JACKSON ROAD

Legend

- Monitoring Well Location
- Vapor Monitoring Well
- Production Well
- Exploratory Boring
- Gas Probe
- Approximate Limit of Landfill Unit
- Approximate Property Boundary
- 5 ft Thickness of Sand and Gravel (Unsaturated Zone)



DATE: 12/06/2011
 SCALE: As Shown
 PROJECT NO: 150-05
 DRAWN: CT
 CHECKED: PFD
 FIGURE: 3-4

DISTRIBUTION MAP OF EXISTING SAND AND GRAVEL ABOVE -10 FEET MSL ELEVATION
 FLORIN PERKINS LANDFILL
 SACRAMENTO COUNTY, CALIFORNIA

APPENDIX D
F-P LANDFILL GAS MONITORING PROBES



Table 2
Existing Gas Probe Details
Florin Perkins Landfill

Probe No.	Surface Elevation (feet MSL)	Total Casing Depth (feet bgs)	Base of Casing Elevation (feet MSL)	Screen Length (feet)	Approx. Base of Waste Elev. (feet MSL)
GP-1S	48.00	10	38	5	-2.5
GP-1M	48.00	25	23	5	-2.5
GP-1D	48.00	40	8	5	-2.5
GP-2S	46.22	10	36	5	-2.5
GP-2M	46.22	25	21	5	-2.5
GP-2D	46.22	40	6	5	-2.5
GP-3S	45.17	12	33	5	-2.5
GP-3M	45.17	25	20	5	-2.5
GP-3D	45.17	40	5	5	-2.5
GP-4†	9.3	14	-5	8	-2.5
GP-5S†	22.8	16	7	10	-2.5
GP-5D†	22.8	28	-5	5	-2.5
GP-6†	10.6	16	-5	10	-2.5
GP-7S†	48.0	16	32	10	-2.5
GP-7M†	48.0	32	16	8	-2.5
GP-7D†	48.0	54	-6	15	-2.5
GP-8S†	44.7	11	34	5	-2.5
GP-8M†	44.7	31	14	10	-2.5
GP-8D†	44.7	49	-4	10	-2.5
GP-9†	2.8	9	-6	3	-2.5
GP-10†	1.0	10	-9	5	-2.5
GP-11S†	30.3	12	18	5	-2.5
GP-11M†	30.3	24	6	5	-2.5
GP-11D†	30.3	39	-9	8	-2.5
GP-12†	10.8	14	-3	8	-2.5
GP-13S†	45.5	11	35	5	-2.5
GP-13M†	45.5	26	20	5	-2.5
GP-13D†	45.5	50	-5	15	-2.5

†: Gas probes installed by DE in 2011.

Table 4
Estimated Waste Thickness and Gas Vent Depth
Florin Perkins Landfill

Landfill Unit	Boring Location	Grade Elevation (ft MSL)	Total Depth of Waste (ft bgs)	Estimated Gas Vent Depth (ft)	Estimated Base of Gas Vent Elev. (ft MSL)
South Unit	DW-4	42.5	38.0	34	8.5
South Unit	CPT-7	42.2	25.0	21	21.2
South Unit	DW-3	40.6	26.0	22	18.6
East Unit	DW-1	42.2	23.5	19	23.2
East Unit	DW-2	41.7	25.5	21	20.7
East Unit	CPT-16	43.2	29.0	25	18.2
North Unit	DW-5	41.8	44.0	40	1.8
North Unit	DW-6	47.2	30.0	26	21.2
North Unit	CP-17	47.1	22	18	29.1

APPENDIX E
F-P LANDFILL LFG DATA TABLES



Table 1
Historic Perimeter Landfill Gas Probe Monitoring Results
Florin Perkins Landfill

Probe No	Compound	Unit	12/28/2009	12/13/2010	5/12/2011	10/31 & 11/4/2011	11/15 & 11/16/2011	12/14/2011	1/31/2012	2/9/2012	3/29/2012	4/30/2012	5/30 & 5/31/2012	6/14/2012	7/12/2012	8/15/2012	9/13/2012	10/11/2012	11/7/2012	11/27/2012	12/20/2012
GP-1D	Balance	% vol	79.3	68.1	—	82.0	83.2	81.4	79.4	83.3	80.2	80.1	81.7	81.9	82.2	81.5	81.2	79.6	79.1	NM	83.9
GP-1D	Carbon Dioxide	% vol	11.1	22	—	9.8	8.4	10.3	5.2	9.9	10.3	8.2	8.8	8.5	8.6	10.4	8.8	10.3	4.3	NM	9.9
GP-1D	Methane	% vol	0	0	0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	NM	0.1
GP-1D	Oxygen	% vol	9.6	9.7	10.3	8.1	8.4	8.3	15.3	6.7	4.4	11.6	9.3	9.3	8.9	8.1	9.9	10.1	16.5	NM	6.1
GP-1M	Balance	% vol	79.7	73.8	—	81.7	82.3	81.6	80.8	80.5	79.4	77.1	79.8	81.1	82.2	81.2	80.7	79.3	79.9	NM	79.9
GP-1M	Carbon Dioxide	% vol	7.3	13.7	—	7.0	6.2	7.5	7.1	6.4	1.7	0.9	2.8	4.3	5.9	7.6	6.4	7.9	7.3	NM	7.6
GP-1M	Methane	% vol	0	0	0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.3	0.1	0.0	0.0	0.0	0.0	NM	0.1
GP-1M	Oxygen	% vol	13	12.5	13.2	11.2	11.5	10.9	12.0	13.1	18.9	21.9	17.1	14.2	11.8	11.2	12.9	12.6	12.7	NM	12.4
GP-1S	Balance	% vol	80.1	78.4	—	81.7	80.5	79.9	79.9	79.6	80.5	79.3	80.9	79.5	80.1	78.2	79.7	78.7	79.2	NM	80.2
GP-1S	Carbon Dioxide	% vol	5.1	7.1	—	5.7	4.7	4.0	4.8	4.4	5.0	4.7	4.4	3.9	4.0	4.0	4.5	6.0	5.3	NM	5.7
GP-1S	Methane	% vol	0	0	0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	NM	0.1
GP-1S	Oxygen	% vol	14.8	14.5	17.3	12.6	14.8	16.1	15.1	15.9	14.4	15.9	14.4	16.2	15.7	17.7	15.8	15.4	15.2	NM	13.9
GP-2D	Balance	% vol	78.6	44.8	—	79.3	81.5	80.8	77.0	81.0	79.2	80.8	78.4	78.7	81.1	78.5	81.0	79.0	80.1	NM	78.6
GP-2D	Carbon Dioxide	% vol	2.8	54.6	—	19.4	17.9	18.0	21.6	18.1	19.2	16.8	19.4	18.7	16.9	20.7	16.6	18.7	17.9	NM	20.5
GP-2D	Methane	% vol	0.5	0	0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	NM	0.9
GP-2D	Oxygen	% vol	0.1	0.6	1.6	1.2	0.6	1.2	1.3	0.8	1.5	2.4	2.2	2.4	1.7	0.5	2.4	1.8	2.0	NM	0.0
GP-2M	Balance	% vol	79.9	80.8	—	79.0	80.9	80.3	77.0	80.8	79.0	81.6	78.8	79.8	82.0	79.1	81.7	79.4	79.2	NM	81.5
GP-2M	Carbon Dioxide	% vol	0.2	0.2	—	18.0	16.7	17.0	19.3	16.6	17.0	12.9	16.9	15.1	13.8	17.5	14.4	16.5	16.4	NM	17.4
GP-2M	Methane	% vol	0	0	0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	NM	0.0
GP-2M	Oxygen	% vol	20.1	19	2.4	3.0	2.4	2.7	3.5	2.5	3.9	5.4	4.2	4.8	4.0	3.2	3.8	4.0	4.3	NM	0.9
GP-2S	Balance	% vol	78.7	45.4	—	81.2	81.4	80.7	79.8	77.4	80.2	79.2	81.5	82.0	81.1	79.8	78.4	78.8	79.4	NM	83.6
GP-2S	Carbon Dioxide	% vol	19.8	51.8	—	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.2	0.5	0.3	0.7	0.5	NM	14.0
GP-2S	Methane	% vol	0	0	0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	NM	0.0
GP-2S	Oxygen	% vol	1.5	2.8	18.5	18.7	18.5	19.2	19.9	22.5	19.5	20.6	18.2	17.7	18.5	19.6	21.3	20.3	20.0	NM	2.2
GP-3D	Balance	% vol	—	46	—	79.5	80.7	80.0	76.5	80.2	79.0	81.1	77.2	78.9	81.0	77.1	81.0	79.0	79.8	76.6	77.5
GP-3D	Carbon Dioxide	% vol	—	53.6	—	18.4	17.3	17.9	21.4	18.2	19.4	16.0	21.2	19.3	17.5	21.9	18.0	20.2	19.6	22.5	21.4
GP-3D	Methane	% vol	—	0.4	1	1.8	2.0	2.1	2.1	1.6	1.7	0.8	1.4	1.3	1.2	1.0	0.6	0.6	0.5	0.7	1.1
GP-3D	Oxygen	% vol	—	0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	1.7	0.1	0.4	0.2	0.0	0.4	0.0	0.0	0.0	0.0
GP-3M	Balance	% vol	79.5	53.2	—	80.7	82.8	82.6	79.5	83.1	82.0	83.8	80.8	82.0	83.4	79.9	81.7	79.6	79.5	78.0	80.9
GP-3M	Carbon Dioxide	% vol	14.4	42.6	—	19.0	17.2	17.3	19.3	16.6	16.4	13.9	18.0	16.3	14.9	19.4	15.9	17.5	16.8	19.3	18.0
GP-3M	Methane	% vol	0	0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.2
GP-3M	Oxygen	% vol	6.1	4.2	0.8	0.3	0.0	0.0	1.0	0.2	1.5	2.2	1.1	1.6	1.4	0.7	2.4	2.7	3.6	2.5	0.9
GP-3S	Balance	% vol	79.1	65.5	—	81.0	83.1	82.7	80.9	84.2	82.3	84.5	80.7	81.8	83.2	80.3	81.9	80.1	80.0	79.3	83.4
GP-3S	Carbon Dioxide	% vol	9.4	28.1	—	10.7	8.3	13.5	14.5	12.6	13.3	11.1	15.3	14.2	13.2	16.3	13.3	14.9	13.7	15.7	14.4
GP-3S	Methane	% vol	0	0	0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.2
GP-3S	Oxygen	% vol	10.9	6.4	11.5	8.2	8.6	3.8	4.3	3.1	4.3	4.3	4.0	3.9	3.3	3.3	4.7	4.9	6.3	4.8	2.0
GP-4	Balance	% vol	—	—	—	79.1	79.8	79.7	78.0	79.5	80.4	81.0	77.1	78.9	78.7	79.8	76.3	77.7	78.7	NM	79.5
GP-4	Carbon Dioxide	% vol	—	—	—	3.1	0.9	0.7	2.2	1.8	4.4	4.5	3.7	4.0	2.1	1.1	1.0	3.9	3.8	NM	5.3

Table 1
Historic Perimeter Landfill Gas Probe Monitoring Results
Florin Perkins Landfill

Probe No	Compound	Unit	12/28/2009	12/13/2010	5/12/2011	10/31 & 11/4/2011	11/15 & 11/16/2011	12/14/2011	1/31/2012	2/9/2012	3/29/2012	4/30/2012	5/30 & 5/31/2012	6/14/2012	7/12/2012	8/15/2012	9/13/2012	10/11/2012	11/7/2012	11/27/2012	12/20/2012
GP-4	Methane	% vol	-	-	-	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.2	0.0	0.0	0.0	NM	0.1
GP-4	Oxygen	% vol	-	-	-	17.8	19.2	19.6	19.7	18.5	15.2	14.4	19.0	16.8	19.1	18.8	22.6	18.4	17.5	NM	15.0
GP-5D	Balance	% vol	-	-	-	84.3	85.6	85.3	84.9	87.2	84.8	84.9	85.4	85.7	87.1	87.2	88.0	85.8	85.5	NM	87.7
GP-5D	Carbon Dioxide	% vol	-	-	-	5.4	6.6	7.0	7.9	6.9	8.1	6.6	7.3	6.9	7.1	7.7	6.4	8.6	7.6	NM	7.5
GP-5D	Methane	% vol	-	-	-	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.0	0.0	0.0	NM	0.1
GP-5D	Oxygen	% vol	-	-	-	10.3	7.7	7.7	7.0	5.8	7.1	8.5	7.2	7.2	5.6	4.9	5.5	5.5	6.8	NM	4.7
GP-5S	Balance	% vol	-	-	-	85.0	83.3	80.9	81.8	81.0	82.4	81.1	83.9	83.9	83.5	82.7	82.0	80.1	81.3	NM	85.8
GP-5S	Carbon Dioxide	% vol	-	-	-	4.4	3.6	3.8	6.0	5.2	6.6	3.3	6.4	6.1	6.3	7.4	6.4	8.2	7.3	NM	7.6
GP-5S	Methane	% vol	-	-	-	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	NM	0.1
GP-5S	Oxygen	% vol	-	-	-	10.5	12.3	15.3	12.1	13.6	11.0	15.5	9.6	9.7	10.0	9.8	11.5	11.5	11.4	NM	6.4
GP-6	Balance	% vol	-	-	-	82.3	81.4	81.4	81.1	80.9	81.5	81.7	80.9	81.5	81.7	80.9	77.0	78.5	80.4	NM	81.3
GP-6	Carbon Dioxide	% vol	-	-	-	2.4	2.7	2.5	3.1	2.3	2.4	2.2	3.4	2.8	2.4	2.6	3.3	3.5	2.8	NM	3.2
GP-6	Methane	% vol	-	-	-	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.1	0.2	0.0	0.0	0.0	NM	0.1
GP-6	Oxygen	% vol	-	-	-	15.2	15.8	15.9	15.7	16.6	16.1	16.0	15.5	15.3	15.8	16.2	19.7	17.9	16.8	NM	15.2
GP-7D	Balance	% vol	-	-	-	82.3	81.3	82.1	80.3	78.9	79.3	80.6	80.4	81.2	81.7	81.2	80.4	80.3	81.0	NM	80.6
GP-7D	Carbon Dioxide	% vol	-	-	-	1.5	1.0	1.1	2.6	1.9	0.5	1.8	2.2	2.2	1.4	1.6	1.4	2.0	1.8	NM	2.4
GP-7D	Methane	% vol	-	-	-	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.0	NM	0.1
GP-7D	Oxygen	% vol	-	-	-	16.2	17.7	16.9	17.1	19.1	20.1	17.5	17.2	16.5	16.8	17.1	18.1	17.6	17.2	NM	16.9
GP-7M	Balance	% vol	-	-	-	82.9	82.9	82.1	80.0	78.6	80.0	79.4	80.0	80.6	81.0	80.9	80.5	79.4	80.2	NM	79.6
GP-7M	Carbon Dioxide	% vol	-	-	-	0.5	0.7	0.8	1.7	1.1	1.0	0.4	1.5	1.5	0.9	1.2	1.1	1.5	1.4	NM	2.1
GP-7M	Methane	% vol	-	-	-	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.0	NM	0.1
GP-7M	Oxygen	% vol	-	-	-	16.5	16.4	17.1	18.2	20.1	18.9	20.1	18.3	17.7	17.9	17.7	18.4	18.9	18.3	NM	17.9
GP-7S	Balance	% vol	-	-	-	80.3	80.0	79.7	78.1	77.1	78.7	79.7	79.5	80.1	80.2	78.8	79.0	78.8	79.6	NM	79.5
GP-7S	Carbon Dioxide	% vol	-	-	-	0.8	0.3	0.4	1.3	0.9	0.7	0.9	1.3	1.6	1.3	1.2	0.9	1.8	1.4	NM	2.0
GP-7S	Methane	% vol	-	-	-	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.0	NM	0.0
GP-7S	Oxygen	% vol	-	-	-	18.9	19.7	19.9	20.5	21.9	20.5	19.3	18.8	18.1	18.5	19.8	20.0	19.3	18.8	NM	18.3
GP-8D	Balance	% vol	-	-	-	82.0	88.7	89.7	88.5	90.4	88.6	88.9	87.7	87.8	88.9	88.4	88.7	87.9	87.7	NM	89.0
GP-8D	Carbon Dioxide	% vol	-	-	-	1.4	5.9	9.5	9.7	8.8	10.0	8.5	9.3	8.1	7.8	9.7	8.8	8.8	9.0	11.3	10.9
GP-8D	Methane	% vol	-	-	-	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.1	0.1	0.1
GP-8D	Oxygen	% vol	-	-	-	16.5	5.4	0.6	1.6	0.7	1.3	2.5	2.9	3.9	2.9	1.7	2.5	3.2	3.0	0.7	0.0
GP-8M	Balance	% vol	-	-	-	84.9	85.0	80.0	86.7	88.9	87.1	88.8	87.4	87.8	89.4	89.1	79.0	88.0	87.0	87.4	89.4
GP-8M	Carbon Dioxide	% vol	-	-	-	4.4	4.7	0.1	6.7	6.4	7.1	5.8	6.5	6.3	6.0	6.6	6.4	7.3	7.3	7.8	7.8
GP-8M	Methane	% vol	-	-	-	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.1	0.1
GP-8M	Oxygen	% vol	-	-	-	10.6	10.4	19.9	6.4	4.6	5.7	5.3	6.0	5.8	4.2	4.2	4.5	4.6	5.7	4.7	2.7
GP-8S	Balance	% vol	-	-	-	79.6	80.0	79.8	77.0	77.1	78.5	83.5	84.2	84.3	85.9	80.2	78.0	80.7	80.9	79.6	79.5
GP-8S	Carbon Dioxide	% vol	-	-	-	0.5	0.2	0.6	3.1	1.6	1.9	2.4	3.7	3.8	2.8	3.9	2.9	3.5	3.2	3.3	2.4
GP-8S	Methane	% vol	-	-	-	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.1	0.1	0.1
GP-8S	Oxygen	% vol	-	-	-	19.8	19.8	19.6	19.7	21.3	19.4	14.0	12.1	11.7	11.0	15.7	19.0	15.7	15.9	17.0	18.0

Table 1
Historic Perimeter Landfill Gas Probe Monitoring Results
Florin Perkins Landfill

Probe No	Compound	Unit	12/28/2009	12/13/2010	5/12/2011	10/31 & 11/4/2011	11/15 & 11/16/2011	12/14/2011	1/31/2012	2/9/2012	3/29/2012	4/30/2012	5/30 & 5/31/2012	6/14/2012	7/12/2012	8/15/2012	9/13/2012	10/11/2012	11/7/2012	11/27/2012	12/20/2012
GP-9	Balance	% vol	--	--	--	80.4	80.3	80.6	79.1	79.3	81.0	81.2	80.1	80.4	83.3	80.4	78.3	78.6	79.3	NM	78.4
GP-9	Carbon Dioxide	% vol	--	--	--	0.9	0.6	0.6	1.1	0.9	0.9	0.6	1.4	0.9	0.7	0.6	0.3	1.2	1.0	NM	1.3
GP-9	Methane	% vol	--	--	--	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.3	0.4	0.4	0.0	0.0	0.0	NM	0.1
GP-9	Oxygen	% vol	--	--	--	18.6	19.1	18.7	19.6	19.7	18.0	18.1	18.4	18.4	15.6	18.4	21.4	20.3	19.7	NM	20.1
GP-10	Balance	% vol	--	--	--	81.8	81.5	80.5	80.6	80.2	80.1	79.7	80.3	80.4	83.7	81.8	80.1	80.9	81.8	NM	79.8
GP-10	Carbon Dioxide	% vol	--	--	--	0.6	0.6	0.9	0.8	0.6	0.9	0.5	1.4	1.0	0.9	0.9	1.8	1.5	1.2	NM	1.4
GP-10	Methane	% vol	--	--	--	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.3	0.3	0.4	0.0	0.0	0.0	NM	0.1
GP-10	Oxygen	% vol	--	--	--	17.5	17.9	18.5	18.5	19.2	19.0	19.8	18.2	18.2	15.1	16.8	18.0	17.6	18.3	NM	18.6
GP-11D	Balance	% vol	--	--	--	83.1	83.7	83.2	80.9	81.1	80.7	80.7	81.0	81.2	82.2	83.1	80.3	81.0	82.0	NM	81.6
GP-11D	Carbon Dioxide	% vol	--	--	--	2.3	2.4	2.5	3.6	3.1	3.0	2.5	3.5	2.9	2.3	1.9	2.6	2.7	2.1	NM	3.1
GP-11D	Methane	% vol	--	--	--	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	NM	0.1
GP-11D	Oxygen	% vol	--	--	--	14.6	13.7	14.3	15.4	15.6	16.4	16.7	15.4	15.5	15.4	14.6	16.9	16.3	15.9	NM	15.1
GP-11M	Balance	% vol	--	--	--	85.8	85.5	84.9	81.7	81.8	80.9	80.6	81.1	81.3	82.3	83.4	80.5	81.3	82.1	NM	81.7
GP-11M	Carbon Dioxide	% vol	--	--	--	0.6	1.1	1.7	3.1	2.6	2.4	1.9	3.0	2.4	1.8	1.3	2.0	2.3	1.8	NM	2.8
GP-11M	Methane	% vol	--	--	--	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	NM	0.1
GP-11M	Oxygen	% vol	--	--	--	13.5	13.3	13.4	15.1	15.5	16.7	17.4	15.8	15.9	15.8	14.9	17.4	16.4	16.1	NM	15.4
GP-11S	Balance	% vol	--	--	--	81.7	82.1	81.8	80.9	80.8	81.2	81.7	81.0	82.0	81.7	81.4	80.7	79.9	81.1	NM	80.2
GP-11S	Carbon Dioxide	% vol	--	--	--	0.3	0.3	0.0	0.0	0.0	0.2	0.0	0.4	0.0	0.3	0.2	0.4	1.2	0.6	NM	0.7
GP-11S	Methane	% vol	--	--	--	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	NM	0.0
GP-11S	Oxygen	% vol	--	--	--	18.0	17.8	18.2	19.0	19.1	18.6	18.3	18.5	17.6	18.0	18.0	18.8	18.7	18.3	NM	19.0
GP-12	Balance	% vol	--	--	--	80.7	79.6	79.8	76.9	81.4	81.9	83.0	77.2	79.7	78.3	79.2	76.2	79.5	81.6	NM	85.9
GP-12	Carbon Dioxide	% vol	--	--	--	3.7	0.6	0.5	2.9	3.5	5.3	4.7	4.3	4.4	3.1	1.6	1.7	6.4	6.1	NM	7.1
GP-12	Methane	% vol	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.2	0.0	0.0	0.0	NM	0.1
GP-12	Oxygen	% vol	--	--	--	15.4	19.7	19.7	20.0	15.1	12.4	12.2	18.3	15.6	18.5	18.9	22.1	14.0	12.1	NM	6.9
GP-13D	Balance	% vol	--	--	--	79.0	86.8	84.7	82.4	84.0	83.8	84.1	83.5	83.7	84.8	81.6	84.5	84.1	83.4	82.2	82.1
GP-13D	Carbon Dioxide	% vol	--	--	--	0.1	13.1	14.2	16.0	14.7	14.6	12.2	14.3	14.6	13.7	17.0	14.1	14.5	15.1	15.9	15.8
GP-13D	Methane	% vol	--	--	--	0.0	0.1	1.1	1.6	1.3	1.7	1.2	1.6	1.4	1.8	1.4	1.2	1.3	1.5	1.9	2.1
GP-13D	Oxygen	% vol	--	--	--	20.8	0.0	0.0	0.0	0.0	0.0	2.4	0.5	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0
GP-13M	Balance	% vol	--	--	--	79.1	87.6	82.9	80.5	81.9	82.3	83.0	82.9	83.0	84.2	80.4	83.5	82.8	82.1	80.7	81.1
GP-13M	Carbon Dioxide	% vol	--	--	--	0.1	11.6	14.8	16.8	15.8	15.3	14.4	14.6	13.0	13.7	17.7	14.6	15.2	15.7	16.6	16.3
GP-13M	Methane	% vol	--	--	--	0.0	0.1	2.3	2.6	2.3	2.4	1.9	1.9	1.8	2.0	1.9	1.7	1.9	2.1	2.6	2.6
GP-13M	Oxygen	% vol	--	--	--	20.6	0.7	0.0	0.0	0.0	0.0	0.6	0.5	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0
GP-13S	Balance	% vol	--	--	--	83.0	84.7	82.6	81.3	82.2	83.0	82.2	83.3	83.6	86.6	83.6	81.8	81.6	NA	80.0	81.4
GP-13S	Carbon Dioxide	% vol	--	--	--	6.2	5.1	2.8	2.9	2.6	2.1	2.3	2.9	3.0	2.0	3.3	3.1	3.2	NA	3.8	3.5
GP-13S	Methane	% vol	--	--	--	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.0	0.0	NA	0.1	0.1
GP-13S	Oxygen	% vol	--	--	--	10.7	10.2	14.6	15.7	15.2	14.9	15.5	13.6	13.2	11.1	13.0	15.0	15.1	NA	16.0	15.0

--: Parameter not measured.

Table 2
Historic In Waste Vapor Probe Monitoring Results
Florin Perkins Landfill

Probe No	Compound	Unit	9/1/2011	10/20/2011	11/16/2011	12/14/2011	1/31/2012	3/29/2012	4/30/2012	5/31/2012	6/14/2012	7/12/2012	8/15/2012	9/13/2012	10/11/2012	11/7/2012	12/20/2012
VP-1	Methane	% vol	26.0	46.0	36.6	13.5	33.0	35.9	20.4	28.2	37.5	37.2	28.9	27.7	36.2	38.4	29.7
VP-1	Oxygen	% vol	9.9	--	0.0	0.0	24.0	0.0	1.9	0.5	0.6	0.1	0.0	0.8	0.1	0.0	0.0
VP-2	Methane	% vol	2.2	40.0	37.2	10.5	26.6	37.4	30.6	34.7	37.2	29.3	13.6	31.3	23.7	22.2	34.0
VP-2	Oxygen	% vol	10.6	--	0.0	0.0	21.0	0.3	1.1	0.5	0.5	0.0	0.0	0.7	0.0	0.0	0.0
VP-3	Methane	% vol	2.0	0.4	9.0	8.3	8.5	7.8	7.4	6.8	6.9	4.8	5.5	4.7	5.5	5.4	10.0
VP-3	Oxygen	% vol	9.5	--	0.0	0.0	18.2	0.0	2.5	0.2	0.7	0.0	0.0	0.7	0.0	0.1	0.0
VP-4	Methane	% vol	21.0	30.0	29.7	14.8	18.0	36.0	20.6	22.3	39.6	26.5	0.2	32.4	32.7	0.0	37.5
VP-4	Oxygen	% vol	10.6	--	5.4	12.1	14.2	2.0	10.7	9.6	1.0	4.9	20.6	2.5	3.0	19.8	0.6
VP-5	Methane	% vol	2.1	21.0	20.0	14.8	12.8	12.9	2.3	18.1	13.7	16.3	17.7	18.1	18.6	18.8	22.0
VP-5	Oxygen	% vol	17.2	--	0.0	0.0	23.5	0.0	18.0	0.4	6.7	0.0	0.0	0.5	0.1	0.1	0.0
VP-6	Methane	% vol	1.1	2.0	17.0	15.0	13.3	12.8	--	14.7	16.2	15.3	19.1	17.5	18.0	17.0	17.1
VP-6	Oxygen	% vol	18.4	--	0.0	0.0	0.0	0.0	--	0.3	0.6	0.0	0.0	0.5	0.0	0.0	0.0
VP-7	Methane	% vol	2.6	33.0	--	17.5	18.8	26.9	4.5	28.2	29.8	37.5	36.0	27.9	37.0	34.3	45.0
VP-7	Oxygen	% vol	11.6	--	--	1.9	6.4	7.4	17.6	1.2	0.6	0.0	0.0	2.2	0.4	0.1	0.0
VP-8	Methane	% vol	3.0	10.0	--	11.9	8.2	15.3	2.4	9.2	9.1	7.5	10.1	8.7	15.1	11.0	15.8
VP-8	Oxygen	% vol	11.1	--	--	0.8	14.3	15.3	18.0	1.7	0.7	20.5	0.0	0.9	0.0	0.1	0.0

--: Parameter not measured.

APPENDIX F
L AND D LANDFILL SITE LAYOUT

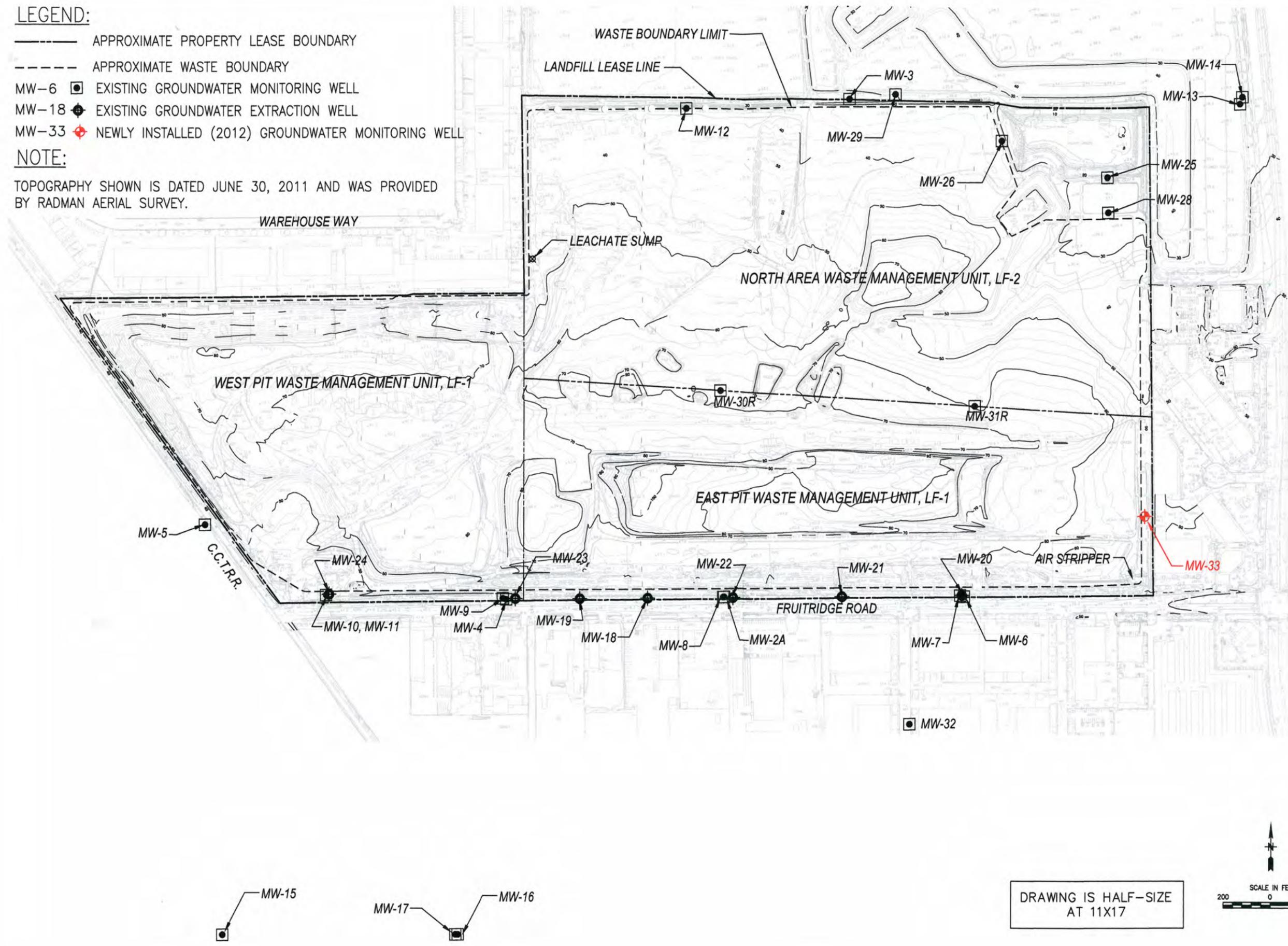


LEGEND:

- APPROXIMATE PROPERTY LEASE BOUNDARY
- APPROXIMATE WASTE BOUNDARY
- MW-6  EXISTING GROUNDWATER MONITORING WELL
- MW-18  EXISTING GROUNDWATER EXTRACTION WELL
- MW-33  NEWLY INSTALLED (2012) GROUNDWATER MONITORING WELL

NOTE:

TOPOGRAPHY SHOWN IS DATED JUNE 30, 2011 AND WAS PROVIDED BY RADMAN AERIAL SURVEY.



DRAWING IS HALF-SIZE AT 11X17

SHEET TITLE		GROUNDWATER MONITORING SYSTEM	
PROJECT TITLE		L AND D LANDFILL SACRAMENTO, CALIFORNIA	
NO.	REVISION	DATE	
1	PER RWOCB COMMENTS	10-05-12	
SHEET TITLE		GROUNDWATER MONITORING SYSTEM	
PROJECT TITLE		L AND D LANDFILL SACRAMENTO, CALIFORNIA	
SHEET TITLE		L AND D LANDFILL LIMITED PARTNERSHIP SACRAMENTO, CALIFORNIA	
SCS ENGINEERS ENVIRONMENTAL CONSULTANTS		DATE: 1-22-13	
3117 FIVE CIRCLE, SUITE 108 SACRAMENTO, CA 95827		SCALE: AS SHOWN	
PH. (916) 361-1257 FAX. (916) 361-1299		FIGURE NO. 2	
PROJ. NO. 07204084.02		DRAWN BY: ATV	
CHK. BY: CH		APP. BY: AAM	
ENCL. BY: EWP			

APPENDIX G

LIST OF WASTE TYPES AND VOLUMES FOR L AND D LANDFILL



**Table 3.
Waste Disposed in L and D Landfill, 1977 - 2009 (thousands of tons)**

Year	Demolition Construction	Paper	Concrete Dirt & Asphalt	Green- waste	Wood	Tires	Plastic	Non- Friable Asbestos	Misc	Annual Total
1977	96	4	21	0	0	0	0	0	0	121
1978	100	5	21	0	0	0	0	0	0	126
1979	103	5	22	0	0	0	0	0	0	131
1980	106	6	24	0	0	0	0	0	0	136
1981	109	7	25	1	0	0	0	0	0	141
1982	113	8	26	1	0	0	0	0	0	147
1983	115	8	27	1	0	0	0	0	0	152
1984	133	9	42	2	0	0	0	0	0	186
1985	153	9	58	2	0	0	0	0	0	222
1986	172	9	73	3	0	0	0	0	0	257
1987	189	10	88	3	0	0	0	0	2	291
1988	208	8	55	4	0	0	0	0	2	277
1989	198	6	64	4	0	0	0	0	2	273
1990	205	4	43	4	0	0	0	0	2	258
1991	179	3	28	3	0	0	0	0	2	215
1992	127	2	19	3	0	0	0	0	1	152
1993	111	3	19	5	0	0	0	0	1	139
1994	322	20	60	6	0	0	0	0	9	417
1995	150	6	44	2	0	0	0	0	5	207
1996	151	5	34	1	0	0	0	0	11	204
1997	162	7	48	3	0	0	0	0	5	225
1998	161	5	40	1	0	0	0	0	22	230
1999	108	5	61	4	2	9	4	0	39	233
2000	95	5	97	2	3	34	7	1	38	282
2001	92	3	38	4	4	16	2	0	29	188
2002	118	4	57	3	5	16	2	0	22	227
2003	149	3	80	3	4	10	1	0	27	277
2004	156	4	79	3	6	12	3	1	35	299
2005	166	4	197	4	4	11	3	2	36	427
2006	145	3	165	3	1	11	3	3	33	367
2007	133	4	148	3	1	4	2	2	33	330
2008	108	2	110	4	1	6	2	4	28	265
2009	62	1	110	1	1	6	2	3	20	206

3. CURRENT DAILY AVERAGE WASTE LOAD

The Solid Waste Facility Permit in force since October 3, 2005 allows a maximum daily waste load of 4,125 tons per day. The average daily waste load in 2008 was 939 tons. This is well below the permit limit due to economic factors.

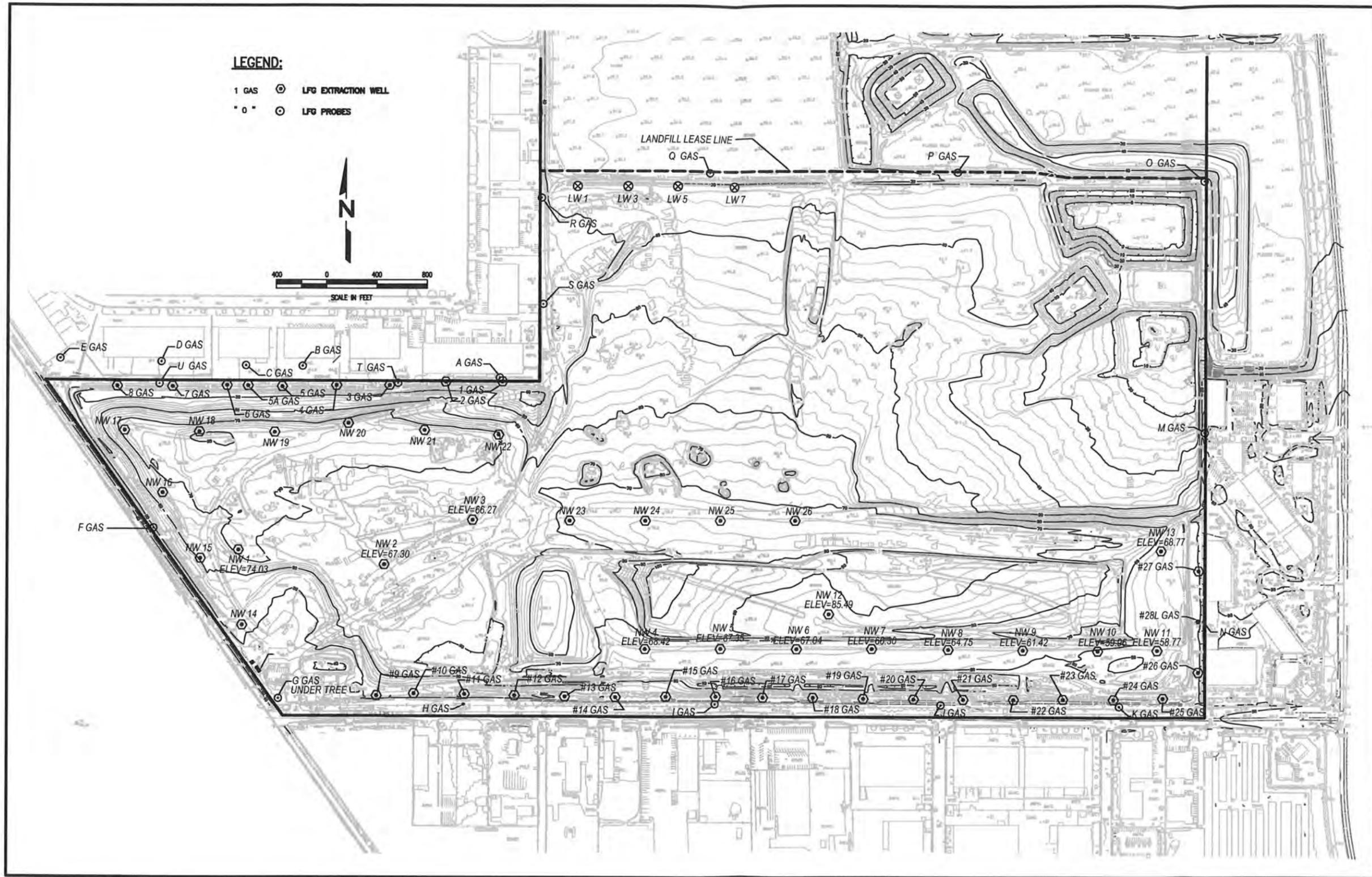
4. PEAK DAILY WASTE LOAD

The peak daily waste load in 2009 was 1,613 tons. We would expect this to increase as the economy improves, but there should be no danger of exceeding the permitted limit.

APPENDIX H

L AND D LANDFILL LFG PROBE CONSRUCTION DETAILS





LEGEND:

- 1 GAS ⊙ LFG EXTRACTION WELL
- " 0 " ⊙ LFG PROBES



NO.	REVISION	DATE

SHEET TITLE SITE MAP WITH LANDFILL GAS MONITORING AND EXTRACTION LOCATIONS
PROJECT TITLE L AND D LANDFILL SACRAMENTO, CALIFORNIA

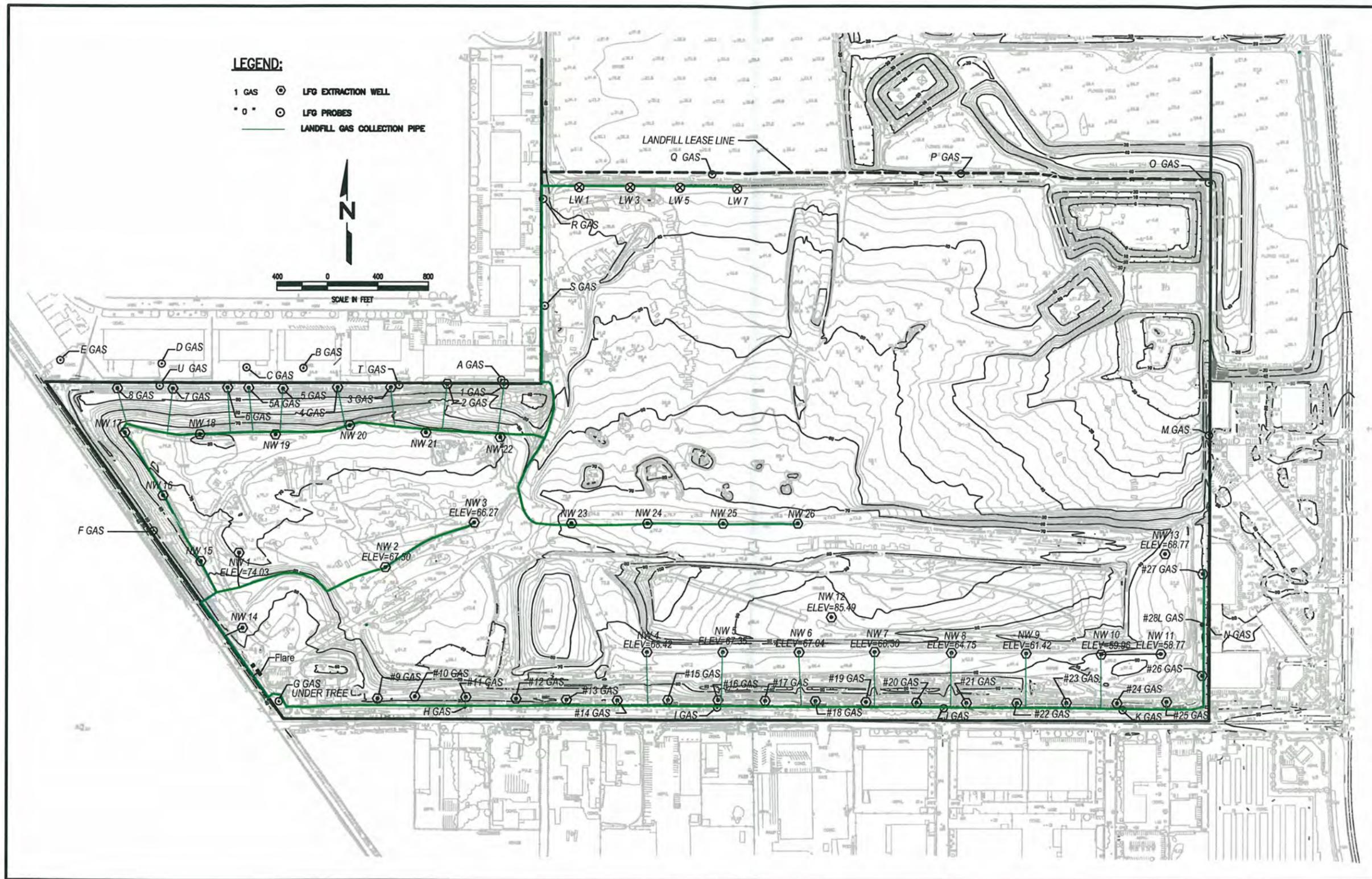
L AND D LANDFILL LIMITED PARTNERSHIP
 SACRAMENTO, CALIFORNIA

SCS ENGINEERS
 ENVIRONMENTAL CONSULTANTS
 3117 FITE CIRCLE, SUITE 108
 SACRAMENTO, CA 95827
 PH: (916) 361-1287 FAX: (916) 361-1299
 PROJ. NO. 07204884.02 I-28
 DES. BY: CH
 PLOT. BY: EWP
 APP. BY: EWP

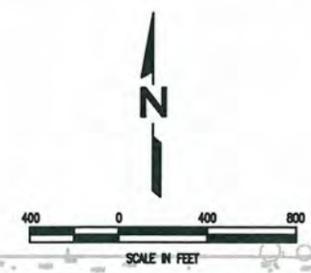
DATE: 10-11-10

SCALE: AS SHOWN

FIGURE:



LEGEND:
 1 GAS ⊙ LFG EXTRACTION WELL
 " 0 " ⊙ LFG PROBES
 ——— LANDFILL GAS COLLECTION PIPE



SHEET TITLE LANDFILL GAS COLLECTION HEADERS AND LATERALS	NO.	REVISION	DATE
PROJECT TITLE L AND D LANDFILL SACRAMENTO, CALIFORNIA			
L AND D LANDFILL LIMITED PARTNERSHIP SACRAMENTO, CALIFORNIA			
SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 3117 FITE CIRCLE, SUITE 108 SACRAMENTO, CA 95827 PH. (916) 361-1297 FAX. (916) 361-1299 PROJ. NO. 0720084.02 T-28 ACAD FILE FIGURE 13 DESK BR. CH PLOT BR. EWP APP. BR. EWP	DATE: 10-11-10		
	SCALE: AS SHOWN		
FIGURE: 13			

Fourth Quarter 2012

Table 1. VOC and LFG Monitoring Probe Testing Results
L and D Landfill, LP, Sacramento, California

Name	Date Time	Methane (% by vol)	Carbon Dioxide (% by vol)	O2 (% by vol)	Balance (% by vol)	Rel Press (H2O inch)	VOC's (ppm)	Comments
MP-A High	12/20/2012 11:25	0	6.1	9.1	84.8	0.26	0.7	
MP-A Low	12/20/2012 11:28	0	5.8	10.8	83.4	0.59	0.3	
MP-A Mid	12/20/2012 11:27	0	6.1	10.7	83.2	0.09	0.7	
MP-B High	12/20/2012 11:11	0	1.8	18.2	80	1.63	0.3	
MP-B Low	12/20/2012 11:14	0	5.7	13.1	81.2	0.05	0	
MP-B Mid	12/20/2012 11:13	0	2.3	17.7	80	0.18	0.2	
MP-C High	12/20/2012 10:59	0	2.4	17.4	80.2	0.23	0.7	
MP-C Low	12/20/2012 11:01	0	5	13.7	81.3	0.06	0.4	
MP-C Mid	12/20/2012 11:00	0	3.1	16.8	80.1	0.11	0.7	
MP-D High	12/20/2012 10:49	0	2.1	16.9	81	0.75	0.8	
MP-D Low	12/20/2012 10:52	0	2.1	16.7	81.2	0.06	0.8	
MP-D Mid	12/20/2012 10:50	0	1.5	17	81.5	0.07	0.7	
MP-E High	12/20/2012 10:40	0	4.3	14.7	81	0.26	0.4	
MP-E Low	12/20/2012 10:43	0	5.5	13.6	80.9	0.13	0.2	
MP-E Mid	12/20/2012 10:42	0	4.7	14.1	81.2	0.13	0.3	
MP-F High	12/20/2012 9:45	0	0.3	20.5	79.2	0.57	0.4	
MP-F Low	12/20/2012 9:48	0	2.3	17.9	79.8	0.27	0.2	
MP-F Mid	12/20/2012 9:46	0	1.4	18.7	79.9	-1	0.8	
MP-G	12/20/2012 7:27	0	3.3	17.2	79.5	0.39	0	
MP-H	12/20/2012 7:36	0	2.3	17.1	80.6	0.16	0	
MP-I	12/20/2012 7:47	0	1.5	18.1	80.4	0.32	0	
MP-J	12/20/2012 7:58	0	2.5	17.5	80	-0.01	0	
MP-K	12/20/2012 8:02	0	1.6	18.6	79.8	0.03	0	
MP-M-D	12/20/2012 8:24	0	1.8	15.2	83	0.17	0.7	
MP-M-M	12/20/2012 8:25	0	6	5.9	88.1	-2.86	0.6	
MP-M-S	12/20/2012 8:26	0	1.8	9.7	88.5	-1.97	0.4	
MP-N	12/20/2012 8:18	0	1.5	18	80.5	0.36	0.6	
MP-O High	12/20/2012 8:30	0	2	16.8	81.2	0.04	0.2	
MP-O Low	12/20/2012 8:32	0	2.2	17.1	80.7	0.11	0.4	
MP-O Mid	12/20/2012 8:31	0	9	9.5	81.5	-3.39	0.8	
MP-P High	12/20/2012 8:41	0	4.6	4.6	90.8	0.25	0.6	

Fourth Quarter 2012
Table 1. VOC and LFG Monitoring Probe Testing Results
L and D Landfill, LP, Sacramento, California

Name	Date Time	Methane (% by vol)	Carbon Dioxide (% by vol)	O2 (% by vol)	Balance (% by vol)	Rel Press (H2O inch)	VOC's (ppm)	Comments
MP-P High	12/20/2012 8:42	0	3.6	10.1	86.3	0.28	0.6	
MP-P Low	12/20/2012 8:53	0	3.1	14.1	82.8	-0.02	0.3	
MP-P Mid	12/20/2012 8:43	0	3.1	14	82.9	0.1	0.4	
MP-Q High	12/20/2012 8:56	0	0.4	19.8	79.8	0.14	0.5	
MP-Q Low	12/20/2012 8:58	0	1.2	18.1	80.7	0.04	0.3	
MP-Q Mid	12/20/2012 8:57	0	1.2	14	84.8	-4.35	0.9	
MP-R High	12/20/2012 9:02	0	3.5	10	86.5	0.18	4.2	
MP-R Low	12/20/2012 9:04	0	4	16	80	0.08	1	
MP-R Mid	12/20/2012 9:03	0	4.3	15.8	79.9	-1.43	0.9	
MP-S High	12/20/2012 9:09	0	8.9	9.9	81.2	0.03	2.6	
MP-S Low	12/20/2012 9:11	0	4.2	15.1	80.7	-3.33	1.7	
MP-S Mid	12/20/2012 9:10	0	1.2	18.5	80.3	-1.77	1.4	
MP-T High	12/20/2012 9:33	0	2.2	17.7	80.1	0.28	2.4	
MP-T Low	12/20/2012 9:35	0	0.9	19	80.1	0.49	0	
MP-T Mid	12/20/2012 9:34	0	1.5	18.6	79.9	-2.77	0.7	
MP-U High	12/20/2012 9:39	0	0.7	19.5	79.8	0.3	0.9	
MP-U Low	12/20/2012 9:42	0	2.2	14.9	82.9	0.4	0	
MP-U Mid	12/20/2012 9:40	0	5.9	10.7	83.4	-3.41	1.3	
Field Technician and Weather Conditions								
Technician	Date	Ambient Temp (deg F)	Baro Press (in -Hg)	General Weather	Wind Speed	Wind Direction		
T. Wright	12/20/12	54	30.17	Clear	Breezy Wind	NW		

**TABLE 1
SPECIFICATION OF EXISTING LFG PROBES
AND SEPARATION BETWEEN PROBES**

LFG PROBE ID ¹	Northing (Latitude)	Easting (Longitude)	SURFACE ELEVATION (FT MSL) ²	TOTAL WELL BORE DEPTH (FT BGS)	MULTI-DEPTH (Y/N)	PROBE SCREENED INTERVALS ³ (FT MSL)	PROBE BOTTOM ELEVATION ⁴ (FT MSL)	EST. ELEVATION BOTTOM OF WASTE ⁵ (FT MSL)	PROBE BOTTOM RELATIVE TO BOTTOM OF WASTE ⁶ (FT)	DISTANCE BETWEEN PROBES ⁷ (FT)
A	9002.1335 (38.527546)	10162.4915 (121.379432)	46.73	39.0	Y	S = 34.5 - 39.5 M = 28.5 - 33.5 D = 7.5 - 12.5	7.5	-21	+28.5	A↔B = 784
B	9046.2984 (38.527706)	9362.427 (121.382227)	45.21	34.5	Y	S = 34.5 - 39.5 M = 24.5 - 29.5 D = 11 - 16	11	-21	+32.0	B↔C = 224
C	9046.6921 (38.527717)	9142.6568 (121.382995)	44.60	34.5	Y	S = 33.5 - 38.5 M = 22.5 - 27.5 D = 10 - 15	10	-21	+31.0	C↔D = 336
D	9061.893 (38.527776)	8782.9821 (121.384252)	40.85	34.0	Y	S = 29.5 - 34.5 M = 18.5 - 23.5 D = 7.5 - 12.5	7.5	-21	+28.5	D↔E = 402
E	9075.0287 (38.527831)	8402.4580 (121.385581)	44.58	34.0	Y	S = 32.5 - 37.5 M = 23.5 - 26.5 D = 10.5 - 15.5	10.5	-21	+31.5	E↔G = 1602
G	7726.1096 (38.524084)	9274.0155 (121.382617)	45.17	54.0	N	D = -7 - +37	-7	-21	+14.0	G↔H = 734
H	7703.8117 (38.523987)	10011.3206 (121.380041)	43.48	53.0	N	D = -9 - +34	-9	-21	+12.0	H↔I = 1000
I	7703.8095 (38.523939)	11009.6742 (121.376550)	44.57	52.0	N	D = -7 - +35	-7	-21	+14.0	I↔J = 902
J	7699.038 (38.523882)	11909.4746 (121.373405)	48.15	51.0	N	D = -2 - +39	-2	-21	+19.0	J↔K = 712
K	7695.7547 (38.523838)	12621.9832 (121.370914)	49.13	47.0	N	D = 2 - +39	2	-21	+23.0	K↔N = 680
N	8031.3097 (38.524743)	12960.1634 (121.369711)	50.28	56.0	N	D = -5 - +25	-5	-21	+16.0	N↔M1 = 828
M1	8775.288 (38.526786)	12965.3940 (121.369646)	49.63	61.0	Y	S = 38 - 43 M = 15 - 30 D = -10 - +5	-10	-21	+11.0	M1↔A = 4450

NOTES

1. F not installed - access denied. L converted to extraction well and replaced with M1 and N.
2. Elevation approximating ground surface based on survey data from Morton and Pitalo.
3. S/M/D = Shallow, Mid, Deep. For single completion probes, screen interval is considered deep since it intersects the cobble zone.
4. Elevation of bottom of deepest screened zone.
5. Assumes deepest waste is -21 ft. msl based on LFG extraction well logs through LF-1 wastes (Well NW-8).
6. Difference in elevation between bottom of deepest waste (elevation -21 ft. MSL) and the bottom of the deepest probe.
7. Distance is measured around perimeter of property.

APPENDIX I

L AND D LANDFILL LFG DATA TABLES

**Table 1. LFG Extraction Well Monitoring Results
L and D Landfill, Sacramento, California**

Name	Date Time	Methane (% by vol)	Carbon Dioxide (% by vol)	O2 (% by vol)	Balance (% by vol)	Init Static Press (H2O inch)	Adj Static Press (H2O inch)	Init Temp (deg F)	Adj Temp (deg F)	Comments
EW-9	10/4/2012 7:02	0	3.3	18.8	77.9	-0.3	-0.3	57	57	
EW-9	11/8/2012 6:52	0	2	18.5	79.5	-0.2	-0.2	48	47	
EW-9	12/12/2012 7:01	0	1.8	17.9	80.3	-0.2	-0.1	46	46	
LCRS-1	7/13/2012 10:36	19.1	25.1	1.6	54.2	-0.2	-0.3	78	78	
LCRS-1	8/3/2012 10:40	24.9	28.5	0.9	45.7	-0.2	-0.1	78	78	
LCRS-1	9/6/2012 10:14	20.5	25.7	1.4	52.4	-0.3	-0.3	77	77	
LCRS-1	10/4/2012 10:40	15.2	23	2.4	59.4	-0.4	-0.4	78	78	
LCRS-1	11/8/2012 9:56	33.7	32.4	0	33.9	-0.4	-0.3	72	73	
LCRS-1	12/12/2012 10:17	27.1	29	0	43.9	-0.3	-0.3	73	73	
LCRS-3	7/13/2012 10:40	26.6	29.1	0.2	44.1	0	-0.1	80	81	
LCRS-3	8/3/2012 10:42	27.5	29.8	0.2	42.5	0	0	81	82	
LCRS-3	9/6/2012 10:18	23.8	27.8	0.5	47.9	0	-0.1	78	79	
LCRS-3	10/4/2012 10:42	17.3	24.4	1.7	56.6	-0.4	-0.3	75	75	
LCRS-3	11/8/2012 10:00	36.5	34	0	29.5	-0.3	-0.3	69	70	
LCRS-3	12/12/2012 10:21	32.4	30.7	0	36.9	-0.2	-0.3	69	69	
LCRS-5	7/13/2012 10:43	31.2	31.6	0.8	36.4	-0.1	-0.1	75	76	
LCRS-5	8/3/2012 10:45	34.8	32.8	0.2	32.2	-0.3	-0.2	78	78	
LCRS-5	9/6/2012 10:20	33.1	31.9	0.6	34.4	-0.3	-0.2	75	75	
LCRS-5	10/4/2012 10:45	29.7	29.8	1.4	39.1	-0.5	-0.6	74	74	
LCRS-5	11/8/2012 10:03	35.4	31.3	0	33.3	-0.3	-0.3	69	69	
LCRS-5	12/12/2012 10:24	44.1	37.1	0	18.8	-0.4	-0.3	65	65	
LCRS-7	7/13/2012 10:46	27.9	30.9	0	41.2	-0.1	-0.1	76	76	
LCRS-7	8/3/2012 10:47	30.2	31.8	0	38	-0.1	-0.1	77	77	
LCRS-7	9/6/2012 10:23	28.2	30.3	0	41.5	-0.1	0	74	74	
LCRS-7	10/4/2012 10:48	25.9	30.1	0	44	-0.5	-0.5	74	73	
LCRS-7	11/8/2012 10:06	31.4	32.6	0	36	-0.3	-0.2	70	70	
LCRS-7	12/12/2012 10:27	32.6	32.6	0	34.8	-0.1	-0.1	67	67	
NW-01D	7/13/2012 11:19	25.5	29.5	0.4	44.6	-0.2	-0.2	77	77	
NW-01D	8/3/2012 11:17	27.2	30.1	0	42.7	-0.3	-0.2	79	79	
NW-01D	9/6/2012 10:49	26.8	29.9	0	43.3	-0.4	-0.3	77	77	
NW-01D	10/4/2012 11:15	26.2	29.8	0	44	-0.6	-0.5	76	76	
NW-01D	11/8/2012 10:24	27.6	30	0.3	42.1	-0.5	-0.5	71	71	
NW-01D	12/12/2012 11:15	27.8	30.7	0	41.5	-0.5	-0.4	67	67	
NW-01S	7/13/2012 11:22	14.1	27.1	0	58.8	-0.1	-0.1	78	78	
NW-01S	8/3/2012 11:19	15.1	27.5	0	57.4	0	0	80	80	
NW-01S	9/6/2012 10:51	15.3	26.5	0	58.2	0	0.1	77	77	
NW-01S	10/4/2012 11:16	16.1	28.2	0	55.7	-0.2	-0.2	76	76	
NW-01S	11/8/2012 10:26	16	27.9	0	56.1	0	0	72	72	
NW-01S	12/12/2012 11:18	23.9	30.3	0	45.8	0	0	58	57	
NW-02D	7/13/2012 11:14	37.7	34.4	0.5	27.4	-0.7	-0.8	77	77	
NW-02D	8/3/2012 11:07	37.8	34.4	0.2	27.6	-0.6	-0.7	78	78	
NW-02D	9/6/2012 10:43	38.9	34.6	0	26.5	-0.8	-0.7	77	77	
NW-02D	10/4/2012 11:09	39.4	35.3	0	25.3	-1.2	-1.2	76	76	

Table 3. LFG and VOC Monitoring Probe Testing Results
L and D Landfill, LP, Sacramento, California

Job No. 01204084.02

Why are VOC readings in all cases much lower in Dec than Sep - Instrument?

Name	Date Time	Methane (% by vol)	Carbon Dioxide (% by vol)	O2 (% by vol)	Balance (% by vol)	Rel Press (H2O inch)	VOC's (ppm)	Comments
MP-A High	9/18/2012 11:21	0	5.6	9.5	84.9	0.21	18.8	
MP-A High	12/20/2012 11:25	0	6.1	9.1	84.8	0.26	0.7	
MP-A Low	9/18/2012 11:24	0	6.3	11.1	82.6	-4.03	38.2	
MP-A Low	12/20/2012 11:28	0	5.8	10.8	83.4	0.59	0.3	
MP-A Mid	9/18/2012 11:23	0	5.4	10.9	83.7	0.06	29.9	
MP-A Mid	12/20/2012 11:27	0	6.1	10.7	83.2	0.09	0.7	
MP-B High	9/18/2012 11:08	0	1.6	17.9	80.5	-5.93	131	
MP-B High	12/20/2012 11:11	0	1.8	18.2	80	1.63	0.3	
MP-B Low	9/18/2012 11:12	0	5.8	13.7	80.5	0.06	34.3	
MP-B Low	12/20/2012 11:14	0	5.7	13.1	81.2	0.05	0	
MP-B Mid	9/18/2012 11:10	0	1.9	17.7	80.4	0.12	89.5	
MP-B Mid	12/20/2012 11:13	0	2.3	17.7	80	0.18	0.2	
MP-C High	9/18/2012 10:55	0	2.2	16.4	81.4	0.04	84.1	
MP-C High	12/20/2012 10:59	0	2.4	17.4	80.2	0.23	0.7	
MP-C Low	9/18/2012 10:59	0	1.8	15	83.2	0.1	25.1	
MP-C Low	12/20/2012 11:01	0	5	13.7	81.3	0.06	0.4	
MP-C Mid	9/18/2012 10:58	0	2.2	15.9	81.9	0.02	29.3	
MP-C Mid	12/20/2012 11:00	0	3.1	16.8	80.1	0.11	0.7	
MP-D High	9/18/2012 10:44	0	0.3	19.8	79.9	0.03	98.7	
MP-D High	12/20/2012 10:49	0	2.1	16.9	81	0.75	0.8	
MP-D Low	9/18/2012 10:47	0	0.2	19.6	80.2	0.04	94.8	
MP-D Low	12/20/2012 10:52	0	2.1	16.7	81.2	0.06	0.8	
MP-D Mid	9/18/2012 10:45	0	1.2	18.1	80.7	0.05	64.7	
MP-D Mid	12/20/2012 10:50	0	1.5	17	81.5	0.07	0.7	
MP-E High	9/18/2012 10:33	0	4	14.3	81.7	0.04	15.8	
MP-E High	12/20/2012 10:40	0	4.3	14.7	81	0.26	0.4	
MP-E Low	9/18/2012 10:36	0	5.7	13.2	81.1	0.13	4.6	
MP-E Low	12/20/2012 10:43	0	5.5	13.6	80.9	0.13	0.2	
MP-E Mid	9/18/2012 10:35	0	4.4	13.7	81.9	0.39	6.6	
MP-E Mid	12/20/2012 10:42	0	4.7	14.1	81.2	0.13	0.3	
MP-F High	9/18/2012 9:45	0	0.2	20.8	79	0.03	0	

*Location
BED*

GEM ID	Name	Date Time	CH4 % by vol	CO2 % by vol	O2 % by vol	Bal Gas % by vol	Ref Temp	Init Stat Press In. H2O	Comment
LADLMPAD	MP-A High	9/29/2004 12:27	0	6.9	8.4	84.7			-
LADLMPAD	MP-A High	12/17/2004 11:46	0	7.7	8.6	83.7			-
LADLMPAD	MP-A High	3/24/2005 11:11	0	4.8	14.2	81		-0.2	-
LADLMPAD	MP-A High	6/2/2005 12:09	0	7.3	11.3	81.4		1.2	-
LADLMPAD	MP-A High	6/10/2005 12:28	0	7	11	82		0	-
LADLMPAD	MP-A High	8/26/2005 10:33	0	6.6	11.8	81.6		0	-
LADLMPAD	MP-A High	12/6/2005 10:20	0	7.7	10.2	82.1		0	-
LADLMPAD	MP-A High	3/20/2006 9:15	0	6.8	11.2				-
LADLMPAD	MP-A High	6/20/2006 9:54	0	6.8	8.7	84.5	0	-0.2	-
LADLMPAD	MP-A High	9/11/2006 12:32	0	4.6	10.8	84.6	0	0.1	-
LADLMPAD	MP-A High	11/16/2006 14:32	11.7	14.9	0.1	73.3	0	0.1	-
LADLMPAD	MP-A High	11/27/2006 14:57	9.1	16.7	0	74.19	0	0	-
LADLMPAD	MP-A High	12/4/2006 8:35	11.2	18.6	0	70.2	0	0	-
LADLMPAD	MP-A High	12/8/2006 0:00	13.5	13.7	0				-
LADLMPAD	MP-A High	12/14/2006 12:48	12.5	14.3	0				-
LADLMPAD	MP-A High	12/22/2006 10:53	5.2	14.7	0.1	80	0	-0.1	-
LADLMPAD	MP-A High	12/29/2006 14:05	14.2	12.1	0.2	73.5	0	0.2	-
LADLMPAD	MP-A High	1/5/2007 11:32	4.4	12.8	0.4	82.39	0	0	-
LADLMPAD	MP-A High	1/9/2007 13:40	3.5	11.9	0.2	84.4			-
LADLMPAD	MP-A High	1/16/2007 15:14	1.3	9.2	5.3	84.2			-
LADLMPAD	MP-A High	1/19/2007 14:27	0	8.8	6.5	84.7			-
LADLMPAD	MP-A High	1/24/2007 0:00	0.2	2.8	15.9	81.1			-
LADLMPAD	MP-A High	3/23/2007 9:46	0	1.4	16.4	82.2	72	-0.1	-
LADLMPAD	MP-A High	6/15/2007 11:37	0	3.6	10.4	86	0	-0.2	-
LADLMPAD	MP-A High	8/7/2007 10:37	0	1	17.2	81.8	0	-0.2	-
LADLMPAD	MP-A High	12/18/2007 11:42	0	1.4	18	80.6	0	-0.1	-
LADLMPAD	MP-A High	3/14/2008 12:44	0	6.4	11.9	81.69	0	0	Sample pulled -
LADLMPAD	MP-A High	6/3/2008 11:31	0	5.9	11.7	82.4	0	0	-
LADLMPAD	MP-A High	6/3/2008 13:03	0	6.3	11.7	82	0	0	-
LADLMPAD	MP-A High	6/5/2008 9:19	0	5.9	14	80.1	0	0	-
LADLMPAD	MP-A High	9/23/2008 10:20	0	5.3	13.3	81.39	0	0	-
LADLMPAD	MP-A High	11/26/2008 9:23	0	5	14.6	80.4	0	0	-
LADLMPAD	MP-A High	3/27/2009 10:33	0	1.5	19.8	78.69			-
LADLMPAD	MP-A High	6/10/2009 11:53	0	0.1	20.6	79.3			-
LADLMPAD	MP-A High	7/15/2009 10:13	0	0	20.3	79.69			-
LADLMPAD	MP-A High	11/11/2009 11:02	0	5.2	12.4	82.4			-
LADLMPAM	MP-A Mid	9/29/2004 12:22	0	10.5	14.3	75.2			-
LADLMPAM	MP-A Mid	12/17/2004 11:41	0	10.2	6.2	83.6			-
LADLMPAM	MP-A Mid	3/24/2005 11:14	0	8.5	10.4	81.1		-0.2	-
LADLMPAM	MP-A Mid	6/2/2005 12:07	0	7.7	10.9	81.4		1.2	-
LADLMPAM	MP-A Mid	6/10/2005 12:30	0	7.3	10.3	82.4		0	-
LADLMPAM	MP-A Mid	8/26/2005 10:35	0	0	19.5	80.5		0.2	-
LADLMPAM	MP-A Mid	12/6/2005 10:21	0	8.5	9.4	82.1		0	-
LADLMPAM	MP-A Mid	3/20/2006 9:13	0	3.1	16.8				-
LADLMPAM	MP-A Mid	6/20/2006 9:58	0	6.4	9.6	84	0	-0.2	-
LADLMPAM	MP-A Mid	9/11/2006 12:34	0	0	20.6	79.4	0	0	-
LADLMPAM	MP-A Mid	11/16/2006 14:35	12.8	17.7	0	69.5	0	0.2	sample taken -
LADLMPAM	MP-A Mid	11/27/2006 15:01	10.7	20.7	0	68.6	0	0	-
LADLMPAM	MP-A Mid	12/4/2006 8:39	14.8	21.7	0	63.49	0	0	-
LADLMPAM	MP-A Mid	12/8/2006 0:00	14.2	16.3	0				-
LADLMPAM	MP-A Mid	12/14/2006 12:50	12.4	14.8	1.5				-
LADLMPAM	MP-A Mid	12/22/2006 10:58	12	18.7	0	69.3	0	0	-
LADLMPAM	MP-A Mid	12/29/2006 14:07	23.3	15.3	0	61.4	0	0.3	-
LADLMPAM	MP-A Mid	1/5/2007 11:36	11.7	16.7	0	71.6	0	0	-
LADLMPAM	MP-A Mid	1/9/2007 13:46	11.2	16.3	0	72.5			-
LADLMPAM	MP-A Mid	1/16/2007 15:10	2.3	12.3	0.1	85.3			-
LADLMPAM	MP-A Mid	1/19/2007 14:29	0.6	12.1	0.1	87.2			-
LADLMPAM	MP-A Mid	1/24/2007 0:00	0.3	1.4	20.1	78.2			-
LADLMPAM	MP-A Mid	3/23/2007 9:50	0	6.8	9	84.2	75	-0.2	-
LADLMPAM	MP-A Mid	6/15/2007 11:39	0	0.3	18.6	81.1	0	-0.2	-

LADLMPAM	MP-A Mid	8/7/2007 10:41	0	5.7	10.9	83.4	0	-0.3	-
LADLMPAM	MP-A Mid	12/18/2007 11:43	0	3.4	16.6	80	0	-0.2	-
LADLMPAM	MP-A Mid	3/14/2008 12:46	0	0	20.2	79.8	0	-0.1	-
LADLMPAM	MP-A Mid	6/3/2008 11:35	0	5.5	13.1	81.4	0	0	-
LADLMPAM	MP-A Mid	6/3/2008 13:06	0	5.4	13.1	81.5	0	0	-
LADLMPAM	MP-A Mid	6/5/2008 9:22	0	1.7	19.6	78.7	0	0	-
LADLMPAM	MP-A Mid	9/23/2008 10:21	0	5.3	13.5	81.19	0	0	-
LADLMPAM	MP-A Mid	11/26/2008 9:29	0	6.1	13.6	80.3	0	0	-
LADLMPAM	MP-A Mid	3/27/2009 10:34	0	0.3	20.4	79.29		-	-
LADLMPAM	MP-A Mid	6/10/2009 11:55	0	3.9	15	81.1		-	-
LADLMPAM	MP-A Mid	7/15/2009 10:15	0	4.9	12.8	82.3		-	-
LADLMPAM	MP-A Mid	11/11/2009 11:06	0	5.5	12.7	81.8		-	-
LADLMPAS	MP-A Low	9/29/2004 12:18	0	11	5.3	83.7		-	-
LADLMPAS	MP-A Low	12/17/2004 11:38	0	10	6	84		-	-
LADLMPAS	MP-A Low	3/24/2005 11:17	0	8.4	10.1	81.5		-0.2	-
LADLMPAS	MP-A Low	6/2/2005 12:05	0	7.8	11	81.2		1.2	-
LADLMPAS	MP-A Low	6/10/2005 12:32	0	7.6	9.9	82.5		0	-
LADLMPAS	MP-A Low	8/26/2005 10:39	0	8.3	9.9	81.8		0.1	-
LADLMPAS	MP-A Low	12/6/2005 10:22	0	2.2	17.9	79.9		0	-
LADLMPAS	MP-A Low	3/20/2006 9:10	0	7.2	12.2			-	-
LADLMPAS	MP-A Low	6/20/2006 10:01	0	6.5	9.7	83.8	0	-0.2	-
LADLMPAS	MP-A Low	9/11/2006 12:36	0	8.9	3.3	87.8	0	0.1	-
LADLMPAS	MP-A Low	11/16/2006 14:37	10.8	14.6	0.1	74.5	0	0.1	-
LADLMPAS	MP-A Low	11/27/2006 15:04	9.1	17.3	0	73.6	0	0	-
LADLMPAS	MP-A Low	12/4/2006 8:43	13.4	18.3	0	68.3	0	0	-
LADLMPAS	MP-A Low	12/8/2006 0:00	8.9	12.8	0.4			-	-
LADLMPAS	MP-A Low	12/14/2006 12:55	6.1	10.9	4.8			-	-
LADLMPAS	MP-A Low	12/22/2006 11:01	11.1	16.2	0	72.69	0	0	-
LADLMPAS	MP-A Low	12/29/2006 14:10	22.3	13.7	0	63.99	0	0.3	-
LADLMPAS	MP-A Low	1/5/2007 11:39	10.7	14.8	0	74.5	0	0	-
LADLMPAS	MP-A Low	1/9/2007 13:50	12.1	14.5	0	73.4		-	-
LADLMPAS	MP-A Low	1/16/2007 15:08	6.6	12	0	81.4		-	-
LADLMPAS	MP-A Low	1/19/2007 14:31	5	11.9	0	83.1		-	-
LADLMPAS	MP-A Low	1/24/2007 0:00	0.1	0	20.5	79.4		-	-
LADLMPAS	MP-A Low	3/23/2007 9:52	0	6.4	11.5	82.1	75	-0.2	-
LADLMPAS	MP-A Low	6/15/2007 11:41	0	0.2	18.6	81.2	0	-0.2	-
LADLMPAS	MP-A Low	8/7/2007 10:46	0	6.3	15.1	78.6	0	-0.2	-
LADLMPAS	MP-A Low	12/18/2007 11:45	0	5	16.1	78.9	0	0	-
LADLMPAS	MP-A Low	3/14/2008 12:48	0	0	20.2	79.8	0	0	-
LADLMPAS	MP-A Low	6/3/2008 11:39	0	5.2	12.6	82.2	0	0	-
LADLMPAS	MP-A Low	6/3/2008 13:12	0	5.2	12.8	82	0	0	-
LADLMPAS	MP-A Low	6/5/2008 9:23	0	5.2	15.2	79.6	0	0	-
LADLMPAS	MP-A Low	9/23/2008 10:23	0	6.9	11.7	81.4	0	0	-
LADLMPAS	MP-A Low	11/26/2008 9:36	0	6.1	15.3	78.6	0	-0.1	-
LADLMPAS	MP-A Low	3/27/2009 10:36	0	0.1	20.3	79.6		-	-
LADLMPAS	MP-A Low	6/10/2009 11:57	0	4.7	13.8	81.5		-	-
LADLMPAS	MP-A Low	7/15/2009 10:17	0	5.1	12.2	82.7		-	-
LADLMPAS	MP-A Low	11/11/2009 11:08	0	5.5	12.6	81.9		-	-
LADLMPBD	MP-B High	9/29/2004 12:10	0	0.5	20.2	79.3		-	-
LADLMPBD	MP-B High	12/17/2004 11:32	0	1.3	19.2	79.5		-	-
LADLMPBD	MP-B High	3/24/2005 11:25	0	1.2	19.5	79.3		-0.4	-
LADLMPBD	MP-B High	6/2/2005 11:57	0	1	19.3	79.7		1.1	-
LADLMPBD	MP-B High	6/10/2005 12:14	0	1.1	18.5	80.4		0	-
LADLMPBD	MP-B High	8/26/2005 10:22	0	1.8	15.7	82.5		0	-
LADLMPBD	MP-B High	12/6/2005 10:07	0	3.9	13.1	83		-0.2	-
LADLMPBD	MP-B High	3/20/2006 9:25	0	2.4	15.1			-	-
LADLMPBD	MP-B High	9/11/2006 13:07	0	6.2	5.4	88.4	0	0.2	-
LADLMPBD	MP-B High	11/16/2006 14:16	0	11.2	2.3	86.5	0	0	-
LADLMPBD	MP-B High	3/23/2007 9:21	0	0.2	19.6	80.2	71	0	-
LADLMPBD	MP-B High	6/15/2007 11:01	0	5.3	9.8	84.89	0	0	-
LADLMPBD	MP-B High	8/7/2007 10:18	0	5.1	12	82.9	0	-0.1	-
LADLMPBD	MP-B High	12/18/2007 11:38	0	0	20.9	79.1		-	-
LADLMPBD	MP-B High	12/18/2007 11:38	0	0	20.9	79.1		-	-

LADLMPBD	MP-B High	3/14/2008 12:30	0	1.9	17.8	80.3	0	0	-
LADLMPBD	MP-B High	6/3/2008 8:41	0	1.7	18.2	80.1	0	-0.1	-
LADLMPBD	MP-B High	9/23/2008 10:05	0	0.9	19.2	79.89	0	-0.1	-
LADLMPBD	MP-B High	11/26/2008 8:59	0	1.7	19	79.3	0	0	-
LADLMPBD	MP-B High	3/27/2009 10:41	0	0.2	20.4	79.4			-
LADLMPBD	MP-B High	3/27/2009 10:41	0	0.2	20.4	79.4			-
LADLMPBD	MP-B High	6/10/2009 11:38	0	2	18.7	79.3			-
LADLMPBD	MP-B High	7/15/2009 9:58	0	1.6	18.3	80.1			-
LADLMPBD	MP-B High	11/11/2009 10:47	0	1.9	18.2	79.89			-
LADLMPBM	MP-B Mid	9/29/2004 12:06	0	1.8	18.5	79.7			-
LADLMPBM	MP-B Mid	12/17/2004 11:28	0	2.6	18.6	78.8			-
LADLMPBM	MP-B Mid	3/24/2005 11:28	0	1.6	19.4	79		-0.4	-
LADLMPBM	MP-B Mid	6/2/2005 11:54	0	1.3	19	79.7		1	-
LADLMPBM	MP-B Mid	6/10/2005 12:16	0	1.4	18.3	80.3		0	-
LADLMPBM	MP-B Mid	8/26/2005 10:24	0	1.9	16.3	81.8		0	-
LADLMPBM	MP-B Mid	12/6/2005 10:08	0	0	20.5	79.5		0	-
LADLMPBM	MP-B Mid	3/20/2006 9:28	0	0.8	18.1				-
LADLMPBM	MP-B Mid	9/11/2006 13:09	0	3.3	8.9	87.8	0	0.2	-
LADLMPBM	MP-B Mid	11/16/2006 14:19	0	6.1	2.9	91	0	0.2	-
LADLMPBM	MP-B Mid	3/23/2007 9:22	0	0.2	19.7	80.1	66	0	-
LADLMPBM	MP-B Mid	6/15/2007 11:04	0	5.6	9.4	85	0	0	-
LADLMPBM	MP-B Mid	8/7/2007 10:23	0	5	11.3	83.7	0	0	-
LADLMPBM	MP-B Mid	12/18/2007 11:36	0	0	20	80			-
LADLMPBM	MP-B Mid	12/18/2007 11:36	0	0	20	80			-
LADLMPBM	MP-B Mid	3/14/2008 12:32	0	0.8	19.7	79.5	0	0	-
LADLMPBM	MP-B Mid	6/3/2008 8:45	0	2.9	17.7	79.39	0	0	-
LADLMPBM	MP-B Mid	9/23/2008 10:08	0	0.5	19.8	79.69	0	-0.1	-
LADLMPBM	MP-B Mid	11/26/2008 9:05	0	3.2	18.1	78.7	0	0	-
LADLMPBM	MP-B Mid	3/27/2009 10:43	0	0.1	20.4	79.5			-
LADLMPBM	MP-B Mid	6/10/2009 11:42	0	0.4	20.5	79.1			-
LADLMPBM	MP-B Mid	7/15/2009 10:00	0	2.2	18	79.8			-
LADLMPBM	MP-B Mid	11/11/2009 10:49	0	2.7	17.8	79.5			-
LADLMPBS	MP-B Low	9/29/2004 12:02	0	6.8	11.2	82			-
LADLMPBS	MP-B Low	12/17/2004 11:25	0	7.1	9.8	83.1			-
LADLMPBS	MP-B Low	3/24/2005 11:30	0	6	10.9	83.1		-5.1	-
LADLMPBS	MP-B Low	6/2/2005 11:52	0	6.1	11.8	82.1		-3.2	-
LADLMPBS	MP-B Low	6/10/2005 12:19	0	5.9	11.4	82.7		-2.8	-
LADLMPBS	MP-B Low	8/26/2005 10:26	0	7.4	12.1	80.5		0	-
LADLMPBS	MP-B Low	12/6/2005 10:11	0	5	14.5	80.5		0	-
LADLMPBS	MP-B Low	3/20/2006 9:31	0	4.5	10.1				-
LADLMPBS	MP-B Low	9/11/2006 13:11	0	6.9	9.4	83.7	0	0	-
LADLMPBS	MP-B Low	11/16/2006 14:21	0	7.4	10.2	82.4	0	0	-
LADLMPBS	MP-B Low	3/23/2007 9:24	0	4.9	7.7	87.4	63	0	-
LADLMPBS	MP-B Low	6/15/2007 11:06	0	5.7	6.4	87.9	0	0	-
LADLMPBS	MP-B Low	8/7/2007 10:27	0	2.1	16.1	81.8	0	0	-
LADLMPBS	MP-B Low	12/18/2007 11:34	0	7	7.1	85.9	0	-0.3	-
LADLMPBS	MP-B Low	3/14/2008 12:34	0	5.2	8.5	86.3	0	-3.3	-
LADLMPBS	MP-B Low	6/3/2008 8:49	0	5.7	8.8	85.5	0	0	-
LADLMPBS	MP-B Low	9/23/2008 10:10	0	5.9	11.1	83	0	0	-
LADLMPBS	MP-B Low	11/26/2008 9:09	0	6.8	10.3	82.89	0	0	-
LADLMPBS	MP-B Low	3/27/2009 10:44	0	0.3	16	83.7			-
LADLMPBS	MP-B Low	6/10/2009 11:40	0	4.8	12	83.2			-
LADLMPBS	MP-B Low	7/15/2009 10:03	0	5.3	11.9	82.8			-
LADLMPBS	MP-B Low	11/11/2009 10:51	0	6.3	12.6	81.1			-
LADLMPCD	MP-C High	9/29/2004 11:57	0	0	20.7	79.3			-
LADLMPCD	MP-C High	12/17/2004 11:18	0	1.9	18.4	79.7			-
LADLMPCD	MP-C High	3/24/2005 10:56	0	1.8	18.8	79.4		-0.5	-
LADLMPCD	MP-C High	6/2/2005 11:42	0	0	20.4	79.6		0.8	-
LADLMPCD	MP-C High	6/10/2005 12:08	0	1.8	18	80.2		0.1	-
LADLMPCD	MP-C High	8/26/2005 10:13	0	1.3	18.5	80.2		0	-
LADLMPCD	MP-C High	12/6/2005 9:48	0	0.1	20.4	79.5		-0.1	-
LADLMPCD	MP-C High	3/20/2006 9:40	0	0.2	20				Sample Taken -
LADLMPCD	MP-C High	6/20/2006 9:32	0	4.2	11.8	84	0	-0.3	-

LADLMPCD	MP-C High	6/20/2006 9:32	0	4.2	11.8	84	0	-0.3	-
LADLMPCD	MP-C High	11/16/2006 14:04	0	4.3	13.6	82.1	0	0.2	-
LADLMPCD	MP-C High	3/23/2007 8:59	0	0.1	19.9	80	73	-0.2	-
LADLMPCD	MP-C High	6/15/2007 10:41	0	3.7	12	84.3	0	0	-
LADLMPCD	MP-C High	8/7/2007 9:56	0	4.1	11.9	84	0	0	-
LADLMPCD	MP-C High	12/18/2007 11:29	0	0	20.5	79.5	0	0	-
LADLMPCD	MP-C High	3/14/2008 12:14	0	2.9	16.7	80.39	0	0	-
LADLMPCD	MP-C High	6/3/2008 8:18	0	2.5	17.4	80.1	0	0	-
LADLMPCD	MP-C High	9/23/2008 9:54	0	0	20.5	79.5	0	-0.2	-
LADLMPCD	MP-C High	11/26/2008 8:32	0	2.4	18.1	79.5	0	-0.1	-
LADLMPCD	MP-C High	3/27/2009 10:21	0	0.2	20.7	79.1			-
LADLMPCD	MP-C High	6/10/2009 10:51	0	0.3	20.5	79.19			-
LADLMPCD	MP-C High	7/15/2009 9:39	0	0	20.1	79.9			-
LADLMPCD	MP-C High	11/11/2009 10:24	0	2.5	17.5	80			-
LADLMPCM	MP-C Mid	9/29/2004 11:52	0	2.1	18.2	79.7			-
LADLMPCM	MP-C Mid	12/17/2004 11:14	0	2.2	18.1	79.7			-
LADLMPCM	MP-C Mid	3/24/2005 10:58	0	1.8	18.7	79.5		-0.4	-
LADLMPCM	MP-C Mid	6/2/2005 11:40	0	1.7	18.6	79.7		0.8	-
LADLMPCM	MP-C Mid	6/10/2005 12:09	0	1.3	18.2	80.5		0	-
LADLMPCM	MP-C Mid	8/26/2005 10:15	0	2.1	17.5	80.4		0	-
LADLMPCM	MP-C Mid	12/6/2005 9:49	0	0.3	19.3	80.4		0	-
LADLMPCM	MP-C Mid	3/20/2006 9:42	0	0.5	18.8				-
LADLMPCM	MP-C Mid	6/20/2006 9:36	0	2.5	12.7	84.8	0	-0.3	-
LADLMPCM	MP-C Mid	11/16/2006 14:06	0	4.2	10.8	85	0	0.2	-
LADLMPCM	MP-C Mid	3/23/2007 9:00	0	0.1	20	79.9	75	-0.2	-
LADLMPCM	MP-C Mid	6/15/2007 10:44	0	3.4	11.9	84.7	0	0	-
LADLMPCM	MP-C Mid	8/7/2007 10:00	0	4	11.8	84.2	0	0	-
LADLMPCM	MP-C Mid	12/18/2007 11:27	0	0	17	83			-
LADLMPCM	MP-C Mid	12/18/2007 11:27	0	0	17	83			-
LADLMPCM	MP-C Mid	3/14/2008 12:17	0	3.4	15.8	80.79	0	0	-
LADLMPCM	MP-C Mid	6/3/2008 8:21	0	3.1	16.8	80.1	0	-0.2	-
LADLMPCM	MP-C Mid	9/23/2008 9:57	0	3.3	17	79.69	0	-0.2	-
LADLMPCM	MP-C Mid	11/26/2008 8:36	0	3.6	17.2	79.19	0	0	-
LADLMPCM	MP-C Mid	3/27/2009 10:22	0	0.1	20.7	79.19			-
LADLMPCM	MP-C Mid	6/10/2009 10:52	0	3	17.7	79.3			-
LADLMPCM	MP-C Mid	7/15/2009 9:41	0	2.7	17.2	80.1			-
LADLMPCM	MP-C Mid	11/11/2009 10:27	0	3.3	17.1	79.6			-
LADLMPCS	MP-C Low	9/29/2004 11:48	0	5.1	14.7	80.2			-
LADLMPCS	MP-C Low	12/17/2004 11:10	0	4.7	15.3	80			-
LADLMPCS	MP-C Low	3/24/2005 11:01	0	3.6	16.9	79.5		-1.9	-
LADLMPCS	MP-C Low	6/2/2005 11:38	0	3.5	17.3	79.2		-1.1	-
LADLMPCS	MP-C Low	6/10/2005 12:04	0	3.6	16.8	79.6		-1.6	-
LADLMPCS	MP-C Low	8/26/2005 10:17	0	4.6	16.8	78.6		-2	-
LADLMPCS	MP-C Low	12/6/2005 9:51	0	4.5	15.8	79.7		-1.5	-
LADLMPCS	MP-C Low	3/20/2006 9:45	0	1.2	16.2				-
LADLMPCS	MP-C Low	6/20/2006 9:40	0	3.4	13.8	82.8	0	-2.5	-
LADLMPCS	MP-C Low	11/16/2006 14:08	0	5	10.6	84.4	0	0	-
LADLMPCS	MP-C Low	3/23/2007 9:01	0	3.6	10.8	85.6	76	-1.3	-
LADLMPCS	MP-C Low	6/15/2007 10:47	0	4	11.2	84.8	0	0	-
LADLMPCS	MP-C Low	8/7/2007 10:04	0	4.7	11.3	84	0	0	-
LADLMPCS	MP-C Low	12/18/2007 11:31	0	0	18.2	81.8			-
LADLMPCS	MP-C Low	12/18/2007 11:31	0	0	18.2	81.8			-
LADLMPCS	MP-C Low	3/14/2008 12:19	0	0	20.3	79.69	0	0	-
LADLMPCS	MP-C Low	6/3/2008 8:28	0	4.7	12.4	82.9	0	0	-
LADLMPCS	MP-C Low	9/23/2008 9:59	0	6.3	11	82.7	0	-0.1	-
LADLMPCS	MP-C Low	11/26/2008 8:41	0	6	10.7	83.3	0	0	-
LADLMPCS	MP-C Low	3/27/2009 10:24	0	3.9	13.9	82.2			-
LADLMPCS	MP-C Low	6/10/2009 10:54	0	4.4	14.9	80.69			-
LADLMPCS	MP-C Low	7/15/2009 9:44	0	4.9	14.7	80.4			-
LADLMPCS	MP-C Low	11/11/2009 10:29	0	5.4	13.8	80.79			-
LADLMPDD	MP-D High	9/29/2004 11:43	0	1.4	18.5	80.1			-
LADLMPDD	MP-D High	12/17/2004 11:04	0	0.7	17.5	81.8			-
LADLMPDD	MP-D High	3/24/2005 10:36	0	1.2	19.6	79.2		-0.3	-

LADLMPDD	MP-D High	6/2/2005 11:28	0	1.5	19.1	79.4		0.5	-
LADLMPDD	MP-D High	6/10/2005 11:43	0	0.3	19.2	80.5		0	-
LADLMPDD	MP-D High	8/26/2005 9:34	0	0	20.3	79.7		0	-
LADLMPDD	MP-D High	12/6/2005 9:34	0	2.5	17.4	80.1		0	-
LADLMPDD	MP-D High	3/20/2006 9:55	0	3.1	15.2				-
LADLMPDD	MP-D High	6/20/2006 12:08	0	1.3	16.8	81.89	0	0	-
LADLMPDD	MP-D High	9/11/2006 12:54	0	2.2	14.4	83.4	0	0.2	-
LADLMPDD	MP-D High	11/16/2006 13:46	0	2.6	15.4	82	0	0.1	-
LADLMPDD	MP-D High	3/23/2007 8:27	0	1.3	14.6	84.1	66	0	-
LADLMPDD	MP-D High	6/15/2007 10:26	0	2.8	13.2	84	0	0	-
LADLMPDD	MP-D High	8/7/2007 9:21	0	3.3	12.3	84.39	0	0	-
LADLMPDD	MP-D High	12/18/2007 11:11	0	0.1	13	86.9	0	0	-
LADLMPDD	MP-D High	3/14/2008 11:49	0	0.1	20.5	79.4	0	0	-
LADLMPDD	MP-D High	6/3/2008 7:58	0	1.8	18.2	80	0	-0.2	-
LADLMPDD	MP-D High	9/23/2008 9:39	0	0	20.3	79.69	0	0	-
LADLMPDD	MP-D High	11/26/2008 8:13	0	2.4	18.1	79.5	0	0	-
LADLMPDD	MP-D High	3/27/2009 10:06	0	0.3	20.8	78.89			-
LADLMPDD	MP-D High	6/10/2009 12:09	0	1	19.1	79.9			-
LADLMPDD	MP-D High	7/15/2009 9:26	0	0.1	20.2	79.69			-
LADLMPDD	MP-D High	11/11/2009 10:13	0	1.8	17.4	80.79			-
LADLMPDM	MP-D Mid	9/29/2004 11:38	0	0.5	18.8	80.7			-
LADLMPDM	MP-D Mid	12/17/2004 10:59	0	0.6	18.7	80.7			-
LADLMPDM	MP-D Mid	3/24/2005 10:39	0	0.5	19.6	79.9		-0.3	-
LADLMPDM	MP-D Mid	6/2/2005 11:26	0	0.4	19.8	79.8		0.4	-
LADLMPDM	MP-D Mid	6/10/2005 11:45	0	0.8	18.9	80.3		0	-
LADLMPDM	MP-D Mid	8/26/2005 9:36	0	1.3	18.6	80.1		0	-
LADLMPDM	MP-D Mid	12/6/2005 9:35	0	0.9	18.1	81		0	-
LADLMPDM	MP-D Mid	3/20/2006 9:57	0	1.8	16.2				-
LADLMPDM	MP-D Mid	6/20/2006 12:10	0	1.3	15.6	83.1	0	0	-
LADLMPDM	MP-D Mid	9/11/2006 12:57	0	1.4	16.5	82.1	0	0.1	-
LADLMPDM	MP-D Mid	11/16/2006 13:49	0	1.7	16.7	81.6	0	0.1	-
LADLMPDM	MP-D Mid	3/23/2007 8:29	0	1.1	16	82.9	65	-0.2	-
LADLMPDM	MP-D Mid	6/15/2007 10:29	0	1.6	15.9	82.5	0	0	-
LADLMPDM	MP-D Mid	8/7/2007 9:25	0	1.4	18.3	80.3	0	0	-
LADLMPDM	MP-D Mid	12/18/2007 11:13	0	1.4	15.5	83.1	0	0.3	-
LADLMPDM	MP-D Mid	3/14/2008 11:52	0	0.8	19.3	79.89	0	0	-
LADLMPDM	MP-D Mid	6/3/2008 8:02	0	0.7	19.7	79.6	0	-0.1	-
LADLMPDM	MP-D Mid	9/23/2008 9:42	0	0.9	19.3	79.8	0	0	-
LADLMPDM	MP-D Mid	11/26/2008 8:18	0	1.4	18.5	80.1	0	-0.1	-
LADLMPDM	MP-D Mid	3/27/2009 10:08	0	0.3	20.1	79.6			-
LADLMPDM	MP-D Mid	6/10/2009 12:11	0	1.2	19.1	79.7			-
LADLMPDM	MP-D Mid	7/15/2009 9:29	0	1.1	18.9	80			-
LADLMPDM	MP-D Mid	11/11/2009 10:14	0	1.6	18.1	80.3			-
LADLMPDS	MP-D Low	9/29/2004 11:34	0	1.2	18.2	80.6			-
LADLMPDS	MP-D Low	12/17/2004 10:55	0	1.4	18.5	80.1			-
LADLMPDS	MP-D Low	3/24/2005 10:43	0	1.8	19.4	78.8		-0.3	-
LADLMPDS	MP-D Low	6/2/2005 11:23	0	1.2	19.4	79.4		0.4	-
LADLMPDS	MP-D Low	6/10/2005 11:46	0	0.9	19.2	79.9		0.2	-
LADLMPDS	MP-D Low	8/26/2005 9:38	0	0.5	19.5	80		0	-
LADLMPDS	MP-D Low	12/6/2005 9:37	0	1.2	17.6	81.2		0	-
LADLMPDS	MP-D Low	3/20/2006 9:59	0	1.5	15.8				-
LADLMPDS	MP-D Low	6/20/2006 12:12	0	1.4	14.9	83.7	0	0	-
LADLMPDS	MP-D Low	9/11/2006 12:58	0	1.4	15.3	83.3	0	0.2	-
LADLMPDS	MP-D Low	11/16/2006 13:52	0	2.3	15.5	82.2	0	0	-
LADLMPDS	MP-D Low	3/23/2007 8:30	0	0.3	16.5	83.2	64	-0.1	-
LADLMPDS	MP-D Low	6/15/2007 10:30	0	1.9	13.9	84.2	0	0	-
LADLMPDS	MP-D Low	8/7/2007 9:29	0	2.3	14.1	83.6	0	0	-
LADLMPDS	MP-D Low	12/18/2007 11:15	0	0	20.4	79.6	0	-0.4	-
LADLMPDS	MP-D Low	3/14/2008 11:54	0	2.1	16.4	81.5	0	0	-
LADLMPDS	MP-D Low	6/3/2008 8:05	0	0	20.3	79.69	0	-0.1	-
LADLMPDS	MP-D Low	9/23/2008 9:45	0	0	20.5	79.5	0	0	-
LADLMPDS	MP-D Low	11/26/2008 8:22	0	2.1	18.3	79.6	0	-0.1	-
LADLMPDS	MP-D Low	3/27/2009 10:09	0	0.4	20.5	79.1			-

LADLMPDS	MP-D Low	6/10/2009 12:13	0	1.7	18	80.3			-
LADLMPDS	MP-D Low	7/15/2009 9:31	0	0.1	20.1	79.8			-
LADLMPDS	MP-D Low	11/11/2009 10:16	0	2	17.8	80.19			-
LADLMPED	MP-E High	9/29/2004 11:20	0	5.8	12.4	81.8			-
LADLMPED	MP-E High	12/17/2004 10:48	0	4.1	15.2	80.7			-
LADLMPED	MP-E High	3/24/2005 10:26	0	5	15.4	79.6			-0.3-
LADLMPED	MP-E High	6/10/2005 11:53	0	5	14.8	80.2			0-
LADLMPED	MP-E High	9/29/2005 9:34	0	3.9	15.2	80.9			0-
LADLMPED	MP-E High	12/6/2005 9:24	0	4.3	15.5	80.2			-0.8-
LADLMPED	MP-E High	3/20/2006 10:10	0	4.8	14.1				-
LADLMPED	MP-E High	6/20/2006 9:04	0	4	15	81	0		-0.4-
LADLMPED	MP-E High	9/11/2006 11:48	0	3.9	15.4	80.69	0		0.1-
LADLMPED	MP-E High	11/16/2006 13:35	0	4.7	16	79.3	0		0.2-
LADLMPED	MP-E High	3/23/2007 7:46	0	4.2	14.3	81.5	66		-0.3-
LADLMPED	MP-E High	6/15/2007 10:11	0	4.6	14.8	80.6	0		0-
LADLMPED	MP-E High	8/7/2007 8:55	0	4.2	14.9	80.9	0		-0.1-
LADLMPED	MP-E High	12/18/2007 11:01	0	4.1	14.8	81.1	0		0-
LADLMPED	MP-E High	3/14/2008 13:10	0	4	14.6	81.4	0		0-
LADLMPED	MP-E High	6/3/2008 7:41	0	2.5	16.5	81	0		-0.1-
LADLMPED	MP-E High	9/23/2008 9:25	0	2.4	17.2	80.39	0		-0.1-
LADLMPED	MP-E High	11/26/2008 7:49	0	4.4	14.7	80.9	0		0-
LADLMPED	MP-E High	3/27/2009 9:55	0	0.2	20.7	79.1			-
LADLMPED	MP-E High	6/10/2009 11:14	0	4.1	14.9	81			-
LADLMPED	MP-E High	7/15/2009 9:13	0	0.2	20.4	79.4			-
LADLMPED	MP-E High	11/11/2009 9:58	0	4.3	14.3	81.39			-
LADLMPEM	MP-E Mid	9/29/2004 11:24	0	3.7	14.9	81.4			-
LADLMPEM	MP-E Mid	12/17/2004 10:43	0	3.3	15.7	81			-
LADLMPEM	MP-E Mid	3/24/2005 10:28	0	3.5	15.8	80.7			-0.3-
LADLMPEM	MP-E Mid	6/10/2005 11:55	0	3.6	15.1	81.3			0.1-
LADLMPEM	MP-E Mid	9/29/2005 9:36	0	0	19.7	80.3			0-
LADLMPEM	MP-E Mid	12/6/2005 9:25	0	3.9	15.2	80.9			-2-
LADLMPEM	MP-E Mid	3/20/2006 10:12	0	5.8	11.2				-
LADLMPEM	MP-E Mid	6/20/2006 9:08	0	3.9	15.3	80.79	0		-0.2-
LADLMPEM	MP-E Mid	9/11/2006 11:50	0	3.8	15.2	81	0		0-
LADLMPEM	MP-E Mid	11/16/2006 13:38	0	5.6	15.6	78.8	0		0.2-
LADLMPEM	MP-E Mid	3/23/2007 7:48	0	3.8	14.2	82	68		-0.2-
LADLMPEM	MP-E Mid	6/15/2007 10:14	0	4.3	14.5	81.19	0		0-
LADLMPEM	MP-E Mid	8/7/2007 9:01	0	4.4	14.8	80.79	0		-0.1-
LADLMPEM	MP-E Mid	12/18/2007 11:02	0	0.7	15.7	83.6	0		0-
LADLMPEM	MP-E Mid	3/14/2008 13:12	0	3.5	14.4	82.1	0		0-
LADLMPEM	MP-E Mid	6/3/2008 7:45	0	3.9	14.6	81.5	0		-0.1-
LADLMPEM	MP-E Mid	9/23/2008 9:27	0	3.4	15.1	81.5	0		-0.2-
LADLMPEM	MP-E Mid	11/26/2008 7:54	0	4.9	14.2	80.9	0		-0.1-
LADLMPEM	MP-E Mid	12/30/2008 9:19	0	4.5	14.6	80.9	0		-0.1-
LADLMPEM	MP-E Mid	3/27/2009 9:56	0	2.6	14.8	82.6			-
LADLMPEM	MP-E Mid	6/10/2009 11:17	0	4	14.6	81.4			-
LADLMPEM	MP-E Mid	7/15/2009 9:15	0	4.1	14.3	81.6			-
LADLMPEM	MP-E Mid	11/11/2009 10:01	0	4.7	13.9	81.4			-
LADLMPES	MP-E Low	9/29/2004 11:28	0	3.8	15.1	81.1			-
LADLMPES	MP-E Low	12/17/2004 10:40	0	5.6	13.8	81.6			-
LADLMPES	MP-E Low	3/24/2005 10:30	0	4	15.7	80.3			-0.2-
LADLMPES	MP-E Low	6/10/2005 11:57	0	3.8	15	81.2			0.1-
LADLMPES	MP-E Low	9/29/2005 9:38	0	3.7	16.5	79.8			0-
LADLMPES	MP-E Low	12/6/2005 9:27	0	5.5	14.6	79.9			-0.1-
LADLMPES	MP-E Low	3/20/2006 10:14	0	3.6	12.8				-
LADLMPES	MP-E Low	6/20/2006 9:12	0	4.5	15	80.5	0		-0.4-
LADLMPES	MP-E Low	9/11/2006 11:52	0	5.4	14.7	79.9	0		0-
LADLMPES	MP-E Low	11/16/2006 13:40	0	6.3	14.9	78.79	0		0.2-
LADLMPES	MP-E Low	3/23/2007 7:52	0	4.3	14.1	81.6	68		-0.1-
LADLMPES	MP-E Low	6/15/2007 10:16	0	4.9	14.3	80.79	0		0-
LADLMPES	MP-E Low	8/7/2007 9:08	0	4.8	15	80.19	0		0-
LADLMPES	MP-E Low	12/18/2007 11:04	0	4.9	13.9	81.19	0		0-
LADLMPES	MP-E Low	3/14/2008 13:14	0	4	13.9	82.1	0		0.1-

LADLMPES	MP-E Low	6/3/2008 7:48	0	4.6	13.9	81.5	0	-0.1	-
LADLMPES	MP-E Low	9/23/2008 9:30	0	5.2	13.9	80.9	0	-0.1	-
LADLMPES	MP-E Low	11/26/2008 7:59	0	5.4	13.3	81.29	0	0	-
LADLMPES	MP-E Low	3/27/2009 9:58	0	0.8	20.4	78.79			-
LADLMPES	MP-E Low	6/10/2009 11:18	0	4.7	14.1	81.2			-
LADLMPES	MP-E Low	7/15/2009 9:18	0	5.1	13.9	81			-
LADLMPES	MP-E Low	11/11/2009 10:03	0	5.6	13.4	81			-

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GEM ID	Name	Date Time	CH4 % by vol	CO2 % by vol	O2 % by vol	Bal Gas % by vol	Init Stat Press In. H2O	Comment
LDLEFW5A	EW-5A	5/27/2005 9:29	26.1	30.2	0.5			-
LDLEFW5A	EW-5A	6/10/2005 12:30	54.6	44.2	0			-
LDLEFW5A	EW-5A	6/24/2005 13:22	25.1	19.4	1.7			-
LDLEFW5A	EW-5A	7/7/2005 13:36	25.4	31.2	0			-
LDLEFW5A	EW-5A	7/15/2005 10:08	28.7	32.2	0			-
LDLEFW5A	EW-5A	7/19/2005 11:24	30.1	32	0			-
LDLEFW5A	EW-5A	8/3/2005 12:41	31	33.3	0			-
LDLEFW5A	EW-5A	8/11/2005 12:28	28.1	32.4	0			-
LDLEFW5A	EW-5A	8/17/2005 12:41	31	33.6	0			-
LDLEFW5A	EW-5A	9/16/2005 10:01	30.7	32.9	0	36.4	-0.3	-
LDLEFW5A	EW-5A	9/23/2005 11:00	31.1	30.9	0.4	37.6	-0.2	-
LDLEFW5A	EW-5A	10/7/2005 11:10	27.2	28.9	1.2	42.7	-2.2	-
LDLEFW5A	EW-5A	10/19/2005 14:55	25.2	29	0.2	45.6	-0.4	-
LDLEFW5A	EW-5A	10/28/2005 14:59	28.4	29.7	0.5	41.4	-0.7	-
LDLEFW5A	EW-5A	11/4/2005 10:48	27.2	31.3	0.2	41.3	-0.8	-
LDLEFW5A	EW-5A	12/6/2005 15:45	29.7	33.3	0	37	-0.3	-
LDLEFW5A	EW-5A	1/6/2006 9:38	30.5	32.5	0	37	0	-
LDLEFW5A	EW-5A	1/9/2006 8:54	0	0	20.5	79.5	-0.8	-
LDLEFW5A	EW-5A	2/6/2006 9:20	0	0	21.5	78.5		-
LDLEFW5A	EW-5A	3/2/2006 9:06	0	0	20.7	79.3		-
LDLEFW5A	EW-5A	4/6/2006 8:10	0	0	20.7	79.3	0	-
LDLEFW5A	EW-5A	5/24/2006 9:52	0	0	19.8	80.19	0	-
LDLEFW5A	EW-5A	7/28/2006 10:50	0.4	0	20.1	79.5		-
LDLEFW5A	EW-5A	8/4/2006 13:01	0.7	5	12.7	81.6	0	-
LDLEFW5A	EW-5A	9/11/2006 8:59	28.2	32.6	0	39.2	-0.7	-
LDLEFW5A	EW-5A	10/30/2006 16:50	28.5	34.4	0	37.09	-0.4	-
LDLEFW5A	EW-5A	11/8/2006 15:49	30.5	33	0	36.5	-0.3	-
LDLEFW5A	EW-5A	12/22/2006 10:24	23.1	32.6	0	44.3	-0.6	-
LDLEFW5A	EW-5A	1/24/2007 10:01	30.6	32.1	0.6	36.7	-0.7	-
LDLEFW5A	EW-5A	2/22/2007 11:48	29.6	30.9	1.1	38.4	-0.8	-
LDLEFW5A	EW-5A	3/7/2007 12:10	29.8	31.4	0	38.79	-0.3	-
LDLEFW5A	EW-5A	4/4/2007 9:17	0	0.2	18	81.8	0	-
LDLEFW5A	EW-5A	5/29/2007 11:59	0	1	18.9	80.1	0	-
LDLEFW5A	EW-5A	6/15/2007 14:58	13.3	23.6	1.4	61.69	0	-
LDLEFW5A	EW-5A	7/17/2007 12:58	0.3	11.3	4.8	83.59	0	-
LDLEFW5A	EW-5A	7/17/2007 12:59	0.3	11.2	4.7	83.8	0	-
LDLEFW5A	EW-5A	8/7/2007 14:16	0.3	7.7	7.6	84.4	0	-
LDLEFW5A	EW-5A	8/7/2007 14:21	0.3	7.6	7.6	84.5	0.2	-
LDLEFW5A	EW-5A	11/14/2007 11:12	20.7	21.6	5.2	52.5	-0.2	-
LDLEFW5A	EW-5A	11/21/2007 9:49	18.8	26.9	0	54.29	-0.9	-
LDLEFW5A	EW-5A	11/28/2007 12:01	16.9	25.8	0.8	56.5	-0.5	-
LDLEFW5A	EW-5A	12/6/2007 10:51	16.2	24.6	1.6	57.6	-0.8	-
LDLEFW5A	EW-5A	12/24/2007 11:47	0	0.1	20.4	79.5	0	-
LDLEFW5A	EW-5A	12/24/2007 11:47	0	0.1	20.6	79.3	-0.1	-
LDLEFW5A	EW-5A	1/11/2008 11:55	0	0.3	19.7	80	-0.2	-
LDLEFW5A	EW-5A	2/11/2008 9:34	8.2	19.6	5.9	66.3	-5.2	-
LDLEFW5A	EW-5A	3/14/2008 13:48	7.2	18	5.7	69.1	-4.5	-
LDLEFW5A	EW-5A	3/14/2008 13:49	7.2	18	5.7	69.1	-4.5	-
LDLEFW5A	EW-5A	4/15/2008 13:28	0	12.4	7.4	80.19	-5.1	-
LDLEFW5A	EW-5A	5/8/2008 10:00	0.2	3.2	16.9	79.7	-4.9	-
LDLEFW5A	EW-5A	6/20/2008 10:35	22.7	23.4	3.9	50	-3.8	-
LDLEFW5A	EW-5A	7/24/2008 14:50	0.8	1.5	19	78.69	-3.4	-
LDLEFW5A	EW-5A	7/24/2008 14:51	0.8	1.5	19	78.69	-3.4	-
LDLEFW5A	EW-5A	8/8/2008 13:19	0.9	11.8	5.5	81.79	-5.8	-
LDLEFW5A	EW-5A	8/8/2008 13:20	0.9	11.8	5.5	81.79	-5.8	-
LDLEFW5A	EW-5A	9/2/2008 14:35	0.6	9.7	6	83.7	0.1	-
LDLEFW5A	EW-5A	10/8/2008 11:08	0.6	9.7	5.4	84.3	0.1	-
LDLEFW5A	EW-5A	11/7/2008 12:57	0.5	9.8	5.1	84.6	-0.1	-
LDLEFW5A	EW-5A	12/10/2008 11:40	0.3	6.9	9.3	83.49	-0.4	-
LDLEFW5A	EW-5A	12/10/2008 11:41	0.3	6.9	9.3	83.49	-0.4	-

LDLEFW5A	EW-5A	1/15/2009 12:39	0.1	7.4	9.1	83.4	-0.1	-
LDLEFW5A	EW-5A	2/3/2009 11:40	0.1	7.4	9	83.5	0	-
LDLEFW5A	EW-5A	3/3/2009 10:03	0.2	6.3	11.2	82.3	-0.7	-
LDLEFW5A	EW-5A	4/1/2009 10:56	0	6	10.2	83.8	-0.1	-
LDLEFW5A	EW-5A	5/8/2009 9:06	0.2	4.5	12.2	83.1	-0.4	-
LDLEFW5A	EW-5A	6/4/2009 9:26	0.1	4.1	13.3	82.5	0	-
LDLEFW5A	EW-5A	7/9/2009 10:03	0	3.7	12.3	84	-0.4	-
LDLEFW5A	EW-5A	8/5/2009 9:13	0.1	3	13.5	83.4	-0.2	-
LDLEFW5A	EW-5A	9/2/2009 11:15	0	2	13.9	84.1	-0.4	-
LDLEFW5A	EW-5A	10/6/2009 12:48	0	0.7	19	80.3	-0.6	-
LDLEFW5A	EW-5A	11/5/2009 10:59	0	0.3	19.7	80	-0.8	-
LDLFEW01	EW-1	5/27/2005 9:54	10.3	13.9	10.5			-
LDLFEW01	EW-1	6/17/2005 13:09	5.4	10.8	12	71.8	-18.3	-
LDLFEW01	EW-1	6/24/2005 16:27	9.4	14.6	8.5	67.5	-17.9	-
LDLFEW01	EW-1	6/28/2005 14:15	7.2	12.2	10.2	70.4	-16.9	-
LDLFEW01	EW-1	7/7/2005 13:45	6.6	12.1	10.4	70.9	-16.9	-
LDLFEW01	EW-1	7/15/2005 10:15	8.3	12.2	10.8	68.7	-17.3	-
LDLFEW01	EW-1	7/27/2005 9:28	6.8	10.1	13.3	69.8	-18.4	-
LDLFEW01	EW-1	8/11/2005 12:39	6.3	12	10.5	71.2	-17.1	-
LDLFEW01	EW-1	8/17/2005 12:52	8.5	13.2	10.2	68.1	-17.6	-
LDLFEW01	EW-1	9/16/2005 10:11	3.2	7.3	15	74.5	-19.2	-
LDLFEW01	EW-1	9/23/2005 11:11	10.3	12	11.6	66.1	-18	-
LDLFEW01	EW-1	10/19/2005 15:07	4.9	8.7	13.1	73.3	-18	-
LDLFEW01	EW-1	10/28/2005 15:09	6.3	10.1	12.3	71.3	-17.8	-
LDLFEW01	EW-1	11/4/2005 11:00	3.6	7.4	14.3	74.7	-17.9	-
LDLFEW01	EW-1	12/6/2005 15:43	8.3	12.7	10.2	68.8	-10.2	-
LDLFEW01	EW-1	1/6/2006 9:42	12.8	18.5	5.2	63.5	-8.4	-
LDLFEW01	EW-1	1/9/2006 8:59	4.1	10.9	12.7	72.3	-11.4	-
LDLFEW01	EW-1	2/6/2006 9:24	5.5	9.8	14.4	70.3		-
LDLFEW01	EW-1	3/2/2006 9:14	6.5	14	10.8	68.7		-
LDLFEW01	EW-1	4/6/2006 7:58	4.3	10.2	12.8	72.69	-11.1	-
LDLFEW01	EW-1	5/24/2006 10:19	4	10	12.4	73.6	-11.6	-
LDLFEW01	EW-1	6/2/2006 9:32	0	0.2	19.9	79.9	0	-
LDLFEW01	EW-1	7/28/2006 11:24	5.4	9.4	13.9	71.29	-8.3	-
LDLFEW01	EW-1	8/28/2006 8:17	0	0	19.1	80.9		-
LDLFEW01	EW-1	9/11/2006 9:12	0	0	20.5	79.5	0	-
LDLFEW01	EW-1	10/30/2006 17:02	17	25.3	1.8	55.9	0	-
LDLFEW01	EW-1	11/8/2006 16:07	34.4	32.5	0	33.09	0	-
LDLFEW01	EW-1	12/14/2006 0:00	45.2	38.8	0			Increased Vac -
LDLFEW01	EW-1	12/22/2006 10:12	32.6	35.2	0	32.2	-1.3	-
LDLFEW01	EW-1	1/24/2007 9:16	28.5	30.7	1	39.8	-23.1	-
LDLFEW01	EW-1	2/22/2007 11:56	31.4	28.1	0.8	39.7	-25.6	-
LDLFEW01	EW-1	3/7/2007 12:31	28.9	29.2	1	40.89	-25.6	-
LDLFEW01	EW-1	4/4/2007 9:52	27.6	29.3	1.5	41.6	-22.5	-
LDLFEW01	EW-1	5/29/2007 12:15	25.5	29.5	1.3	43.7	-25.8	-
LDLFEW01	EW-1	6/15/2007 15:09	21.2	24.1	5.6	49.1	-23.5	-
LDLFEW01	EW-1	7/17/2007 13:18	25.4	28.3	1.2	45.1	-24.8	-
LDLFEW01	EW-1	8/7/2007 13:42	23.9	28.3	1.5	46.3	-25.4	-
LDLFEW01	EW-1	9/21/2007 11:21	23.7	26.7	2.4	47.2	-28.1	-
LDLFEW01	EW-1	10/22/2007 13:48	19.5	24.9	2.1	53.5	-30.4	-
LDLFEW01	EW-1	11/14/2007 12:02	21	26.9	1.6	50.5	-9.2	-
LDLFEW01	EW-1	11/21/2007 10:21	10.6	22.6	2.8	64	-5.2	-
LDLFEW01	EW-1	11/28/2007 12:29	6	20.5	3	70.5	-4.2	-
LDLFEW01	EW-1	12/6/2007 11:17	5.8	19.7	2.6	71.9	-2.5	-
LDLFEW01	EW-1	12/24/2007 12:11	2	16.7	4.2	77.1	-2.8	-
LDLFEW01	EW-1	1/11/2008 12:18	2.4	17.1	3.7	76.8	-3.2	-
LDLFEW01	EW-1	2/11/2008 9:56	1.9	16	4.3	77.79	-3.6	-
LDLFEW01	EW-1	3/14/2008 14:13	1.9	15.8	6.4	75.89	-2.8	-
LDLFEW01	EW-1	4/15/2008 13:49	1.5	15.7	3.8	79	-2.9	-
LDLFEW01	EW-1	5/8/2008 10:19	1.4	13.9	4	80.69	-2.9	-
LDLFEW01	EW-1	6/20/2008 10:59	1.5	16.1	2.4	80	-2.4	-
LDLFEW01	EW-1	7/24/2008 14:19	1.6	16.2	2	80.19	-2.1	-
LDLFEW01	EW-1	7/24/2008 14:20	1.6	16.2	2	80.19	-2.1	-

LDLFEW01	EW-1	8/8/2008 13:55	1.5	16.5	2.2	79.8	-3.7	-
LDLFEW01	EW-1	8/8/2008 13:56	1.5	16.5	2.2	79.8	-3.7	-
LDLFEW01	EW-1	9/2/2008 14:48	1.3	16.6	2.3	79.79	-2.8	-
LDLFEW01	EW-1	9/2/2008 14:48	1.3	16.6	2.3	79.79	-2.8	-
LDLFEW01	EW-1	10/8/2008 10:51	1.5	17.9	1.3	79.29	-2.2	-
LDLFEW01	EW-1	11/7/2008 13:12	1.6	17.7	1.5	79.19	-2.3	-
LDLFEW01	EW-1	11/7/2008 13:13	1.6	17.7	1.5	79.19	-2.3	-
LDLFEW01	EW-1	12/10/2008 10:50	1.8	18	1.7	78.5	-3	-
LDLFEW01	EW-1	12/10/2008 10:51	1.8	18	1.7	78.5	-3	-
LDLFEW01	EW-1	1/15/2009 13:32	1.8	17.9	1.5	78.79	-1.7	-
LDLFEW01	EW-1	1/15/2009 13:33	1.8	17.9	1.5	78.79	-1.7	-
LDLFEW01	EW-1	2/3/2009 12:02	1.3	17.4	1.7	79.6	-1.2	-
LDLFEW01	EW-1	2/3/2009 12:02	1.3	17.4	1.7	79.6	-1.2	-
LDLFEW01	EW-1	3/3/2009 9:48	1.2	17.3	2.3	79.19	-1.8	-
LDLFEW01	EW-1	3/3/2009 9:49	1.2	17.3	2.3	79.19	-1.8	-
LDLFEW01	EW-1	4/1/2009 11:10	1.1	16.9	1.7	80.3	-1.3	-
LDLFEW01	EW-1	5/12/2009 12:11	1.3	16.8	1.3	80.59	-1.1	-
LDLFEW01	EW-1	6/4/2009 9:53	0.6	6.4	11.6	81.4	-0.1	-
LDLFEW01	EW-1	7/9/2009 10:35	1.2	10.7	3.5	84.6	0	-
LDLFEW01	EW-1	7/9/2009 10:39	1.2	11.7	2.9	84.2	-0.7	-
LDLFEW01	EW-1	8/5/2009 9:43	1.8	17.5	2.5	78.19	-1.9	-
LDLFEW01	EW-1	8/5/2009 9:44	1.8	17.5	2.5	78.19	-1.9	-
LDLFEW01	EW-1	9/2/2009 11:51	2.7	17.6	0.6	79.1	-4.2	-
LDLFEW01	EW-1	9/2/2009 11:52	2.7	17.6	0.6	79.1	-4.2	-
LDLFEW01	EW-1	10/6/2009 13:17	1.6	17.4	1	80	-5.8	-
LDLFEW01	EW-1	10/6/2009 13:18	1.6	17.4	1	80	-5.8	-
LDLFEW01	EW-1	11/5/2009 11:32	1.7	18.5	0.6	79.2	-3.7	-
LDLFEW01	EW-1	11/5/2009 11:38	1.7	18.5	0.6	79.2	-3.7	-
LDLFEW02	EW-2	5/27/2005 9:50	0	3.2	17.6			-
LDLFEW02	EW-2	6/17/2005 13:07	0	0.7	19.2	80.1	0	-
LDLFEW02	EW-2	6/24/2005 16:26	0	2.4	16.5	81.1	0	-
LDLFEW02	EW-2	6/28/2005 14:12	0	2.1	17.2	80.7	0	-
LDLFEW02	EW-2	7/7/2005 13:43	0	3.4	15.1	81.5	0	-
LDLFEW02	EW-2	7/15/2005 10:13	0	6.8	10.8	82.4	0	-
LDLFEW02	EW-2	7/27/2005 9:25	0.1	0.4	19.9	79.6	0	-
LDLFEW02	EW-2	8/11/2005 12:36	0	0	19.1	80.9	0	-
LDLFEW02	EW-2	8/17/2005 12:49	0	0.2	19.3	80.5	0	-
LDLFEW02	EW-2	9/16/2005 10:09	0	0	20	80	-0.1	-
LDLFEW02	EW-2	9/23/2005 11:09	0	3.4	16.5	80.1	0	-
LDLFEW02	EW-2	10/19/2005 15:05	0	1.3	17.9	80.8	0	-
LDLFEW02	EW-2	10/28/2005 15:07	0	5.7	12.8	81.5	-0.1	-
LDLFEW02	EW-2	11/4/2005 10:57	0	0	19.5	80.5	0	-
LDLFEW02	EW-2	12/6/2005 15:45	0.3	13.1	4.2	82.4	0	-
LDLFEW02	EW-2	1/6/2006 9:45	1.6	18.7	0.2	79.5	-0.2	-
LDLFEW02	EW-2	1/9/2006 9:01	0	0.2	20.5	79.3	-1.2	-
LDLFEW02	EW-2	2/6/2006 9:28	0	0.2	21	78.8		-
LDLFEW02	EW-2	3/2/2006 9:17	0	0.6	19.9	79.5		-
LDLFEW02	EW-2	4/6/2006 8:00	0	0	19.9	80.1	-0.2	-
LDLFEW02	EW-2	5/24/2006 10:10	0	0	19.8	80.19	0	-
LDLFEW02	EW-2	6/2/2006 9:30	0	0.2	20	79.8	0	-
LDLFEW02	EW-2	7/28/2006 11:20	0.4	1.2	18.9	79.5	0	-
LDLFEW02	EW-2	8/28/2006 8:20	0	0	19.2	80.8		-
LDLFEW02	EW-2	9/11/2006 9:09	0	0	20.5	79.5	0	-
LDLFEW02	EW-2	10/30/2006 17:00	0.6	18.7	4.9	75.79	0	-
LDLFEW02	EW-2	11/8/2006 16:03	3.4	20.1	2.2	74.3	0	-
LDLFEW02	EW-2	1/24/2007 10:09	0.3	2	18.5	79.19	-0.2	-
LDLFEW02	EW-2	2/22/2007 11:54	0.1	6.9	14.9	78.1	-0.1	-
LDLFEW02	EW-2	3/7/2007 12:27	0	3.3	17.1	79.6	0	-
LDLFEW02	EW-2	4/4/2007 9:46	0	2.5	17.6	79.9	0	-
LDLFEW02	EW-2	5/29/2007 12:11	0	4	16	80	0	-
LDLFEW02	EW-2	6/15/2007 15:06	0	3.7	15.5	80.8	0	-
LDLFEW02	EW-2	7/17/2007 13:14	0	1.2	19.3	79.5	0	-
LDLFEW02	EW-2	8/7/2007 13:48	0	0.1	19.8	80.1	0	-

LDLFEW02	EW-2	11/14/2007 11:58	0.8	0	20.5	78.69	-0.1	-
LDLFEW02	EW-2	11/21/2007 10:18	0	0.1	20.9	79	-0.1	-
LDLFEW02	EW-2	11/28/2007 12:25	0	0.1	21	78.9	-0.2	-
LDLFEW02	EW-2	12/6/2007 11:15	0	1.2	18.8	80	-0.6	-
LDLFEW02	EW-2	12/24/2007 12:09	0	0.2	20.4	79.4	-0.9	-
LDLFEW02	EW-2	1/11/2008 12:15	0	0.5	19.2	80.3	-0.3	-
LDLFEW02	EW-2	2/11/2008 9:54	0	0.4	20.1	79.5	-2.5	-
LDLFEW02	EW-2	3/14/2008 14:11	0	0.4	19.5	80.1	-3.1	-
LDLFEW02	EW-2	4/15/2008 13:47	0	0.4	19.7	79.89	-3	-
LDLFEW02	EW-2	5/8/2008 10:17	0	0.3	19.8	79.89	-3	-
LDLFEW02	EW-2	6/20/2008 10:56	0	0.2	18.9	80.9	-1.9	-
LDLFEW02	EW-2	7/24/2008 14:25	0	0.6	19.6	79.8	-0.7	-
LDLFEW02	EW-2	7/24/2008 14:26	0	0.6	19.6	79.8	-0.7	-
LDLFEW02	EW-2	8/8/2008 13:51	0	1.3	18.8	79.89	-4.5	-
LDLFEW02	EW-2	8/8/2008 13:52	0	1.3	18.8	79.89	-4.5	-
LDLFEW02	EW-2	9/2/2008 14:44	0	0.5	19.8	79.69	-1.8	-
LDLFEW02	EW-2	9/2/2008 14:45	0	0.5	19.8	79.69	-1.8	-
LDLFEW02	EW-2	10/8/2008 10:55	0	0.6	19.2	80.19	0	-
LDLFEW02	EW-2	11/7/2008 13:07	0	0.5	19.6	79.9	0	-
LDLFEW02	EW-2	11/7/2008 13:08	0	0.5	19.6	79.9	0	-
LDLFEW02	EW-2	12/10/2008 10:54	0	0.1	20.4	79.5	0	-
LDLFEW02	EW-2	1/15/2009 13:20	0	0	20.1	79.9	0	-
LDLFEW02	EW-2	2/3/2009 11:58	0	0	20.6	79.4	0	-
LDLFEW02	EW-2	3/3/2009 9:52	0	0.1	20.7	79.19	-0.4	-
LDLFEW02	EW-2	4/1/2009 11:07	0	0	20.6	79.4	0	-
LDLFEW02	EW-2	5/12/2009 12:08	0	0.3	19.9	79.79	0	-
LDLFEW02	EW-2	6/4/2009 9:50	0	1	20.1	78.9	0	-
LDLFEW02	EW-2	7/9/2009 10:32	0	0	19.9	80.1	0	-
LDLFEW02	EW-2	8/5/2009 9:39	0	0	20.1	79.9	0	-
LDLFEW02	EW-2	9/2/2009 11:48	0	0.4	20	79.6	0	-
LDLFEW02	EW-2	10/6/2009 13:14	0	3.6	18.9	77.5	0	-
LDLFEW02	EW-2	11/5/2009 11:22	0	0.3	20.5	79.19	0	-
LDLFEW03	EW-3	5/27/2005 9:46	4.1	14.9	4.7			-
LDLFEW03	EW-3	6/17/2005 13:05	4.1	14.1	5.8	76	-0.2	Liquid Inter.; -
LDLFEW03	EW-3	6/24/2005 16:24	20.9	26.5	0.9	51.7	-126.8	Liquid Inter.; -
LDLFEW03	EW-3	6/28/2005 14:08	6.5	18.4	1.7	73.4	0	-
LDLFEW03	EW-3	7/7/2005 13:41	23.7	29.5	0	46.8	0	Liquid Inter.; -
LDLFEW03	EW-3	7/15/2005 10:11	0.7	4.9	15.8	78.6	-14.9	Liquid Inter.; -
LDLFEW03	EW-3	7/19/2005 11:29	0.9	4	16.3	78.8	0.6	Liquid Inter.; -
LDLFEW03	EW-3	8/11/2005 12:34	0	0.2	18.8	81	-0.3	-
LDLFEW03	EW-3	8/17/2005 12:47	0	1.1	18.2	80.7	0	-
LDLFEW03	EW-3	9/16/2005 10:07	0	0.1	20	79.9	0	-
LDLFEW03	EW-3	9/23/2005 11:06	0	2.9	17.4	79.7	0	-
LDLFEW03	EW-3	10/19/2005 15:03	0	9.4	9.7	80.9	0	-
LDLFEW03	EW-3	10/28/2005 15:05	0.1	13.1	5.7	81.1	0	-
LDLFEW03	EW-3	11/4/2005 10:55	0	0.2	19.1	80.7	0	-
LDLFEW03	EW-3	12/6/2005 15:49	0.4	13.3	3.4	82.9	-0.2	-
LDLFEW03	EW-3	1/6/2006 9:54	0	0	20.3	79.7	-0.4	-
LDLFEW03	EW-3	1/9/2006 9:06	0	0	20.9	79.1	-1.3	-
LDLFEW03	EW-3	2/6/2006 9:37	0	0	21.3	78.7		-
LDLFEW03	EW-3	3/2/2006 9:22	0	0	20.7	79.3		-
LDLFEW03	EW-3	3/20/2006 8:41	0.6	18.6	0.7	80.1		-
LDLFEW03	EW-3	4/6/2006 8:03	0	0.2	20.6	79.2	-0.4	-
LDLFEW03	EW-3	5/24/2006 10:14	0	0	19.7	80.3	0	-
LDLFEW03	EW-3	6/2/2006 9:27	0	0.1	20.1	79.8	0	-
LDLFEW03	EW-3	7/28/2006 11:18	0.4	0	19.9	79.69	0	-
LDLFEW03	EW-3	8/4/2006 13:08	0	1	18.3	80.69	0	-
LDLFEW03	EW-3	9/11/2006 9:07	0	0	20.6	79.4	0	-
LDLFEW03	EW-3	10/30/2006 16:58	5.9	21.2	0	72.89	0	-
LDLFEW03	EW-3	11/8/2006 16:00	7.5	20.5	0	72	0	-
LDLFEW03	EW-3	12/22/2006 10:16	0	5.7	18.1	76.2	-0.2	-
LDLFEW03	EW-3	1/24/2007 10:05	1.8	9.5	12.7	76	-0.2	-
LDLFEW03	EW-3	2/22/2007 11:52	1.7	12.4	9.8	76.1	-0.2	-

LDLFEW03	EW-3	3/7/2007 12:24	1.5	17.3	0.4	80.79	0	-
LDLFEW03	EW-3	4/4/2007 9:42	0	0.1	20.8	79.1	0	-
LDLFEW03	EW-3	5/29/2007 12:08	0	0.8	19.3	79.89	0	-
LDLFEW03	EW-3	6/15/2007 15:04	1	14.6	3.2	81.2	0	-
LDLFEW03	EW-3	7/17/2007 13:12	0	13.7	4.4	81.9	0.1	-
LDLFEW03	EW-3	8/7/2007 13:55	0	11.8	6.1	82.1	0.1	-
LDLFEW03	EW-3	11/14/2007 11:38	0	10.1	6.3	83.6	-0.2	-
LDLFEW03	EW-3	11/21/2007 10:08	0	10.3	9.7	80	-0.3	-
LDLFEW03	EW-3	11/28/2007 12:14	0	10.1	10.4	79.5	0	-
LDLFEW03	EW-3	12/6/2007 11:08	0	10.2	9.9	79.9	-0.1	-
LDLFEW03	EW-3	12/24/2007 12:02	0	7.2	13.9	78.9	-0.2	-
LDLFEW03	EW-3	1/11/2008 12:09	0	6.9	13.5	79.6	-0.4	-
LDLFEW03	EW-3	2/11/2008 9:46	0	5	15.4	79.6	-0.6	-
LDLFEW03	EW-3	3/14/2008 14:03	0	4.9	15	80.1	-0.2	-
LDLFEW03	EW-3	4/15/2008 13:39	0	4.1	16.1	79.8	-0.1	-
LDLFEW03	EW-3	5/8/2008 10:11	0	3	16.9	80.1	-0.4	-
LDLFEW03	EW-3	6/20/2008 10:48	0	3	15.8	81.19	-0.1	-
LDLFEW03	EW-3	7/24/2008 14:30	0	3.4	15.9	80.69	-0.1	-
LDLFEW03	EW-3	7/24/2008 14:31	0	3.4	15.9	80.69	-0.1	-
LDLFEW03	EW-3	8/8/2008 13:36	0	3.6	15.7	80.7	-0.6	-
LDLFEW03	EW-3	8/8/2008 13:36	0	3.6	15.7	80.7	-0.6	-
LDLFEW03	EW-3	9/2/2008 14:42	0	3.5	15.5	81	0.1	-
LDLFEW03	EW-3	10/8/2008 10:59	0	0.7	20	79.3	0	-
LDLFEW03	EW-3	11/7/2008 13:05	0	2.8	16.9	80.29	0.1	-
LDLFEW03	EW-3	11/7/2008 13:05	0	2.8	16.9	80.29	0.1	-
LDLFEW03	EW-3	12/10/2008 11:11	0	1.3	18.6	80.1	0	-
LDLFEW03	EW-3	1/15/2009 12:58	0	0.9	19.4	79.69	0.1	-
LDLFEW03	EW-3	2/3/2009 11:54	0	0.7	19.4	79.9	0.1	-
LDLFEW03	EW-3	3/3/2009 9:54	0	0.4	20.3	79.3	-0.5	-
LDLFEW03	EW-3	4/1/2009 11:05	0	0.4	19.6	80	0	-
LDLFEW03	EW-3	5/12/2009 12:04	0	0.6	18.8	80.6	0	-
LDLFEW03	EW-3	6/4/2009 9:42	0	1.6	18.9	79.5	0	-
LDLFEW03	EW-3	7/9/2009 10:22	0	0.3	19.1	80.6	0	-
LDLFEW03	EW-3	8/5/2009 9:30	0	0.4	19.2	80.39	0	-
LDLFEW03	EW-3	9/2/2009 11:35	0	0.5	19.4	80.1	0	-
LDLFEW03	EW-3	10/6/2009 13:07	0	1.7	19.4	78.9	0.1	-
LDLFEW03	EW-3	11/5/2009 11:20	0	0.7	19.5	79.8	0	-
LDLFEW04	EW-4	5/27/2005 9:42	22.5	24.9	3			-
LDLFEW04	EW-4	6/17/2005 12:59	17.8	21	5.6	55.6	-1.3	-
LDLFEW04	EW-4	6/17/2005 13:03	19.7	24.2	3.3	52.8	-0.7	-
LDLFEW04	EW-4	6/24/2005 16:23	21	26.6	0.9	51.5	-0.2	-
LDLFEW04	EW-4	6/28/2005 14:07	20.8	26	1	52.2	-0.2	-
LDLFEW04	EW-4	7/7/2005 13:39	23.8	29.7	0	46.5	0	-
LDLFEW04	EW-4	7/15/2005 10:10	0.7	4.7	15.8	78.8	-0.1	-
LDLFEW04	EW-4	7/19/2005 11:27	0.8	3.9	16.3	79	0	-
LDLFEW04	EW-4	8/11/2005 12:32	0.5	9.9	8.3	81.3	-0.3	-
LDLFEW04	EW-4	8/17/2005 12:45	1.4	15.2	4.4	79	0	-
LDLFEW04	EW-4	9/16/2005 10:05	0	1.4	18.8	79.8	-0.1	-
LDLFEW04	EW-4	9/23/2005 11:04	1	6.2	14.2	78.6	0	-
LDLFEW04	EW-4	10/19/2005 15:01	0	2.2	14.8	83	0	-
LDLFEW04	EW-4	10/28/2005 15:03	0	7.1	10.8	82.1	0	-
LDLFEW04	EW-4	11/4/2005 10:53	0	2.4	16.8	80.8	0	-
LDLFEW04	EW-4	12/6/2005 15:52	0.9	16.8	0.5	81.8	0	-
LDLFEW04	EW-4	1/6/2006 9:59	0	0.3	20.3	79.4	-160.2	-
LDLFEW04	EW-4	1/9/2006 9:08	0	0	20.9	79.1	-1.6	-
LDLFEW04	EW-4	2/6/2006 9:41	0	0.1	21	78.9		-
LDLFEW04	EW-4	3/2/2006 9:26	0	0.2	20.7	79.1		-
LDLFEW04	EW-4	3/20/2006 8:45	0	15.3	4.5	80.2		-
LDLFEW04	EW-4	4/6/2006 8:05	0	0.1	20.6	79.3	-0.2	-
LDLFEW04	EW-4	5/24/2006 10:01	0	0	19.7	80.3	0	-
LDLFEW04	EW-4	6/2/2006 9:26	0	0.1	20.3	79.6	0	-
LDLFEW04	EW-4	7/28/2006 11:14	0.5	1.3	18.3	79.89	0	-
LDLFEW04	EW-4	8/4/2006 13:05	0	3.1	15.1	81.8	0	-

LDLFEW04	EW-4	9/11/2006 9:04	0	0	20.5	79.5	0	-
LDLFEW04	EW-4	10/30/2006 16:55	17.6	26.3	1.8	54.3	-0.3	-
LDLFEW04	EW-4	11/8/2006 15:56	18.5	25.3	1.1	55.1	-0.2	-
LDLFEW04	EW-4	12/22/2006 10:19	12.8	22.2	4.4	60.6	-0.3	-
LDLFEW04	EW-4	1/24/2007 10:03	10.6	18.7	6.9	63.79	-0.3	-
LDLFEW04	EW-4	2/22/2007 11:50	12.3	21.2	4	62.5	-0.3	-
LDLFEW04	EW-4	3/7/2007 12:19	10.9	21.8	0.6	66.7	0	-
LDLFEW04	EW-4	4/4/2007 9:40	0	0.1	20.9	79	0	-
LDLFEW04	EW-4	5/29/2007 12:05	0	0.6	19.6	79.8	0	-
LDLFEW04	EW-4	6/15/2007 15:02	0	12.3	5.1	82.6	0.1	-
LDLFEW04	EW-4	7/17/2007 13:08	0	7.2	11.7	81.1	0.1	-
LDLFEW04	EW-4	8/7/2007 14:04	0	4.9	12.5	82.6	0.1	-
LDLFEW04	EW-4	11/14/2007 11:28	1.1	19.7	0.3	78.89	-0.1	-
LDLFEW04	EW-4	11/21/2007 10:02	1.3	15.1	4.4	79.19	-0.4	-
LDLFEW04	EW-4	11/28/2007 12:07	0.2	12.8	6.1	80.9	-0.1	-
LDLFEW04	EW-4	12/6/2007 11:03	0.4	12.9	5.6	81.1	-0.1	-
LDLFEW04	EW-4	12/24/2007 11:58	0	8.9	11.1	80	-0.3	-
LDLFEW04	EW-4	1/11/2008 12:05	0	8.3	11.9	79.79	-0.5	-
LDLFEW04	EW-4	2/11/2008 9:42	0	6.2	14.1	79.7	-0.7	-
LDLFEW04	EW-4	3/14/2008 13:58	0	5.6	14.3	80.1	-0.2	-
LDLFEW04	EW-4	3/14/2008 13:58	0	5.6	14.3	80.1	-0.2	-
LDLFEW04	EW-4	4/15/2008 13:36	0	4.4	15.9	79.69	-0.1	-
LDLFEW04	EW-4	5/8/2008 10:07	0	2.7	17.1	80.2	-0.4	-
LDLFEW04	EW-4	6/20/2008 10:44	0	2.3	16.7	81	-0.2	-
LDLFEW04	EW-4	7/24/2008 14:35	0	3.1	16.5	80.4	-1	-
LDLFEW04	EW-4	7/24/2008 14:41	0	3.1	16.5	80.4	-1	-
LDLFEW04	EW-4	8/8/2008 13:30	0	0.9	19.6	79.5	-6	-
LDLFEW04	EW-4	8/8/2008 13:32	0	0.9	19.6	79.5	-6	-
LDLFEW04	EW-4	9/2/2008 14:39	0	0.2	20.2	79.6	0	-
LDLFEW04	EW-4	10/8/2008 11:02	0	0	20.3	79.69	0	-
LDLFEW04	EW-4	11/7/2008 13:02	0	0.3	20	79.69	0.3	-
LDLFEW04	EW-4	11/7/2008 13:02	0	0.3	20	79.69	0.3	-
LDLFEW04	EW-4	12/10/2008 11:19	0	0.4	19.9	79.69	0	-
LDLFEW04	EW-4	1/15/2009 12:55	0	0.5	19.8	79.69	0.1	-
LDLFEW04	EW-4	2/3/2009 11:48	0	0.6	19.5	79.9	0.1	-
LDLFEW04	EW-4	3/3/2009 9:57	0	0.7	20	79.3	-0.7	-
LDLFEW04	EW-4	4/1/2009 11:02	0	0.9	18.5	80.6	0	-
LDLFEW04	EW-4	5/12/2009 12:02	0	1.4	17.1	81.5	0	-
LDLFEW04	EW-4	6/4/2009 9:36	0	1.7	17.9	80.4	0	-
LDLFEW04	EW-4	7/9/2009 10:15	0	1.2	17.6	81.2	0	-
LDLFEW04	EW-4	8/5/2009 9:25	0	1	17.9	81.1	0	-
LDLFEW04	EW-4	9/2/2009 11:28	0	0.8	18.1	81.1	0	-
LDLFEW04	EW-4	10/6/2009 13:01	0	1	18.3	80.69	0.1	-
LDLFEW04	EW-4	11/5/2009 11:13	0	1.5	18.2	80.3	-0.1	-
LDLFEW05	EW-5	5/27/2005 9:35	18.8	20.9	5.6			-
LDLFEW05	EW-5	6/17/2005 12:57	26.2	30.5	0.4	42.9	-1.6	Wide Open; -
LDLFEW05	EW-5	6/24/2005 16:20	25.7	30.8	0.1	43.4	-0.3	-
LDLFEW05	EW-5	6/24/2005 16:21	19.1	23.3	3.8	53.8	-0.2	-
LDLFEW05	EW-5	6/28/2005 14:02	26	31.3	0	42.7	-0.4	-
LDLFEW05	EW-5	6/28/2005 14:05	17	23	3.1	56.9	-0.2	-
LDLFEW05	EW-5	7/7/2005 13:38	16.1	21	4.6	58.3	-0.6	-
LDLFEW05	EW-5	7/15/2005 10:08	15.3	19.3	5.5	59.9	-0.4	-
LDLFEW05	EW-5	7/19/2005 11:25	16.6	21	4.7	57.7	-0.1	-
LDLFEW05	EW-5	8/11/2005 12:30	17.3	22.9	3.5	56.3	-0.2	-
LDLFEW05	EW-5	8/17/2005 12:42	20	24.8	3.1	52.1	0	-
LDLFEW05	EW-5	9/16/2005 10:03	5.1	7	14.9	73	-0.2	-
LDLFEW05	EW-5	9/23/2005 11:02	19	22.5	3.1	55.4	0	-
LDLFEW05	EW-5	10/19/2005 14:59	0.7	6.1	12.5	80.7	0	-
LDLFEW05	EW-5	10/28/2005 15:01	0.4	8.3	10.4	80.9	0	-
LDLFEW05	EW-5	11/4/2005 10:51	0.3	2.9	16.3	80.5	0	-
LDLFEW05	EW-5	11/30/2005 10:06	30.9	35.6	1.2	32.3	0	-
LDLFEW05	EW-5	12/6/2005 15:48	2.9	17.5	2.7	76.9	0.2	-
LDLFEW05	EW-5	1/6/2006 10:03	11.9	23.4	1.7	63	-0.2	-

LDLFEW05	EW-5	1/9/2006 9:11	0	0	20.9	79.1	-1.4	-
LDLFEW05	EW-5	2/6/2006 9:44	0.8	3.2	18.4	77.6		-
LDLFEW05	EW-5	3/2/2006 9:30	0.3	1.2	19.6	78.9		-
LDLFEW05	EW-5	4/6/2006 8:08	0	0	20.6	79.4	-0.1	-
LDLFEW05	EW-5	5/24/2006 9:56	2.3	5.1	15.2	77.4	0	-
LDLFEW05	EW-5	5/24/2006 10:04	0	0	19.7	80.3	0	-
LDLFEW05	EW-5	7/28/2006 11:11	9.3	12.7	11.4	66.6	0	-
LDLFEW05	EW-5	8/4/2006 13:03	0.8	4.8	14.4	79.99	0	-
LDLFEW05	EW-5	9/11/2006 9:02	1.9	3.2	17.7	77.19	0	-
LDLFEW05	EW-5	10/30/2006 16:53	23.9	32.1	0.5	43.5	-0.4	-
LDLFEW05	EW-5	11/8/2006 15:53	31.4	32	0	36.59	-0.3	-
LDLFEW05	EW-5	12/22/2006 10:22	17.8	24.7	4.5	52.99	-0.8	-
LDLFEW05	EW-5	1/24/2007 9:22	18.8	23.4	4.1	53.69	-0.9	-
LDLFEW05	EW-5	2/22/2007 11:45	31.5	31.3	0	37.2	-0.6	-
LDLFEW05	EW-5	3/7/2007 12:14	15.1	23.6	2.3	59	-0.3	-
LDLFEW05	EW-5	4/4/2007 9:35	0	0	20.9	79.1	0	-
LDLFEW05	EW-5	5/29/2007 12:03	0	0.4	20	79.6	0	-
LDLFEW05	EW-5	6/15/2007 15:00	11.2	20.6	2.6	65.6	0	-
LDLFEW05	EW-5	7/17/2007 13:03	1.3	15.3	1.1	82.3	0	-
LDLFEW05	EW-5	7/17/2007 13:05	1.5	15.6	0.9	82	0	-
LDLFEW05	EW-5	8/7/2007 14:10	0.5	10.4	5.8	83.3	0	-
LDLFEW05	EW-5	11/14/2007 11:24	3.3	18.9	0	77.79	-0.1	-
LDLFEW05	EW-5	11/21/2007 9:59	6	14.7	7.2	72.1	-0.4	-
LDLFEW05	EW-5	11/28/2007 11:51	4.8	14.2	7.5	73.5	-0.2	-
LDLFEW05	EW-5	12/6/2007 11:00	4.6	15.7	5.6	74.1	-0.1	-
LDLFEW05	EW-5	12/24/2007 11:55	2.1	12.4	9.3	76.19	-0.3	-
LDLFEW05	EW-5	1/11/2008 12:03	2.1	12	9.1	76.8	-0.4	-
LDLFEW05	EW-5	2/11/2008 9:40	0.7	9.3	11.3	78.69	-0.9	-
LDLFEW05	EW-5	3/14/2008 13:55	0	7.2	12.2	80.6	-0.8	-
LDLFEW05	EW-5	4/15/2008 13:33	0	6.5	12.8	80.69	-0.1	-
LDLFEW05	EW-5	5/8/2008 10:05	0	4.7	14.7	80.6	-0.3	-
LDLFEW05	EW-5	6/20/2008 10:41	0	4.1	14.3	81.6	-0.1	-
LDLFEW05	EW-5	7/24/2008 14:45	0	5.1	13.4	81.5	0	-
LDLFEW05	EW-5	7/24/2008 14:46	0	5.1	13.4	81.5	0	-
LDLFEW05	EW-5	8/8/2008 13:28	1.3	9.6	9.2	79.9	-2.7	-
LDLFEW05	EW-5	8/8/2008 13:28	1.3	9.6	9.2	79.9	-2.7	-
LDLFEW05	EW-5	9/2/2008 14:37	0	6.5	11.7	81.8	0	-
LDLFEW05	EW-5	10/8/2008 11:05	0	7.3	12	80.69	-0.1	-
LDLFEW05	EW-5	11/7/2008 12:59	0	8.3	10.9	80.79	0	-
LDLFEW05	EW-5	11/7/2008 13:00	0	8.3	10.9	80.79	0	-
LDLFEW05	EW-5	12/10/2008 11:26	0	4	15.4	80.6	0	-
LDLFEW05	EW-5	1/15/2009 12:52	0	1.2	19.2	79.6	0.2	-
LDLFEW05	EW-5	2/3/2009 11:44	0	1.5	18.6	79.9	0.2	-
LDLFEW05	EW-5	3/3/2009 10:00	0	1.8	18.6	79.6	-0.6	-
LDLFEW05	EW-5	4/1/2009 10:58	0	1.8	17.5	80.69	0	-
LDLFEW05	EW-5	5/12/2009 11:58	0	1.8	16.5	81.69	0	-
LDLFEW05	EW-5	6/4/2009 9:33	0	2.5	16.9	80.6	0	-
LDLFEW05	EW-5	7/9/2009 10:13	0	1.7	16.4	81.9	0	-
LDLFEW05	EW-5	8/5/2009 9:22	0	1.5	16.8	81.69	0	-
LDLFEW05	EW-5	9/2/2009 11:25	0	1.7	16.4	81.9	0	-
LDLFEW05	EW-5	10/6/2009 12:58	0	3.4	16.5	80.1	0.1	-
LDLFEW05	EW-5	11/5/2009 11:02	0	1.2	17.2	81.6	0	-
LDLFEW06	EW-6	5/27/2005 9:18	21.4	26.4	2.2			-
LDLFEW06	EW-6	6/17/2005 12:55	21.2	26.3	2.5	50	-2.4	Wide Open; -
LDLFEW06	EW-6	6/24/2005 16:18	21.2	27.4	1.1	50.3	-0.6	-
LDLFEW06	EW-6	6/28/2005 14:00	21.4	28.1	0.8	49.7	-0.2	-
LDLFEW06	EW-6	7/7/2005 13:34	21.3	27.8	1.3	49.6	-0.7	-
LDLFEW06	EW-6	7/15/2005 10:04	22.5	27.3	1.8	48.4	-0.7	-
LDLFEW06	EW-6	7/19/2005 11:20	24.5	28.6	1.4	45.5	-0.5	-
LDLFEW06	EW-6	8/11/2005 12:25	24	29.5	1	45.5	-0.4	-
LDLFEW06	EW-6	8/17/2005 12:37	25.6	29.6	1.1	43.7	-0.1	-
LDLFEW06	EW-6	9/16/2005 9:59	25.1	26.9	3.8	44.2	-0.2	-
LDLFEW06	EW-6	9/23/2005 10:58	27.1	27.1	2.7	43.1	-1	-

LDLFEW06	EW-6	10/7/2005 11:08	24	25.2	3.3	47.5	-2.2	-
LDLFEW06	EW-6	10/19/2005 14:53	24.4	26.2	2.3	47.1	-0.1	-
LDLFEW06	EW-6	10/28/2005 14:57	25.1	25.3	3	46.6	-0.5	-
LDLFEW06	EW-6	11/4/2005 10:45	23.8	25.6	4	46.6	-1	-
LDLFEW06	EW-6	11/30/2005 10:09	0	0.1	19.8	80.1	0	-
LDLFEW06	EW-6	12/6/2005 15:42	20.4	25.2	4	50.4	-0.2	-
LDLFEW06	EW-6	1/6/2006 10:06	27.2	30.7	0	42.1	-0.2	-
LDLFEW06	EW-6	1/9/2006 9:13	0	0	21	79	-1.4	-
LDLFEW06	EW-6	1/9/2006 9:17	0	0	20.9	79.1	0	-
LDLFEW06	EW-6	2/6/2006 9:48	0	0.1	21	78.9	-	-
LDLFEW06	EW-6	3/2/2006 9:32	0	0.2	20.3	79.5	-	-
LDLFEW06	EW-6	4/6/2006 8:14	0	0.2	20.5	79.3	0	-
LDLFEW06	EW-6	5/24/2006 9:46	0	0	19.9	80.1	0	-
LDLFEW06	EW-6	6/2/2006 9:22	0	0.3	19.6	80.1	0	-
LDLFEW06	EW-6	7/28/2006 11:04	0.4	0	20.1	79.5	0	-
LDLFEW06	EW-6	8/4/2006 12:58	0	0	19.9	80.1	0	-
LDLFEW06	EW-6	9/11/2006 8:57	19.8	21.8	7.5	50.9	-0.8	-
LDLFEW06	EW-6	10/30/2006 16:48	17.5	22.3	7.9	52.3	-0.5	-
LDLFEW06	EW-6	11/8/2006 15:46	18.7	23.2	5.5	52.6	-0.4	-
LDLFEW06	EW-6	12/22/2006 10:27	7.8	12	14.3	65.89	-0.7	-
LDLFEW06	EW-6	1/24/2007 9:58	22.6	20.5	7.2	49.7	-0.3	-
LDLFEW06	EW-6	2/22/2007 11:42	18.9	20.2	7.1	53.8	-0.7	-
LDLFEW06	EW-6	3/7/2007 12:06	21.9	22.1	6.2	49.8	-0.4	-
LDLFEW06	EW-6	4/4/2007 9:14	0	0.3	18.1	81.6	0	-
LDLFEW06	EW-6	5/29/2007 11:57	0	1	19.2	79.8	0	-
LDLFEW06	EW-6	6/15/2007 14:55	5	9.8	9.6	75.6	0	-
LDLFEW06	EW-6	7/17/2007 12:51	0.6	11	6.5	81.9	0	-
LDLFEW06	EW-6	7/17/2007 12:53	0.6	11.2	6.1	82.1	0	-
LDLFEW06	EW-6	8/7/2007 14:25	0.3	7.1	7.8	84.8	0	-
LDLFEW06	EW-6	8/7/2007 14:27	0.3	7.1	7.8	84.8	0.2	-
LDLFEW06	EW-6	11/14/2007 11:07	9.7	22.6	0.2	67.5	-0.2	-
LDLFEW06	EW-6	11/21/2007 9:46	22	28.1	1	48.9	-0.3	-
LDLFEW06	EW-6	11/21/2007 9:46	22	28.1	1	48.9	-0.3	-
LDLFEW06	EW-6	11/28/2007 11:37	17.9	26.5	1.1	54.5	-0.2	-
LDLFEW06	EW-6	12/6/2007 10:49	14.3	24.9	0.9	59.89	-0.1	-
LDLFEW06	EW-6	12/24/2007 11:42	11.6	24.7	1	62.7	-0.3	-
LDLFEW06	EW-6	1/11/2008 11:53	12.1	24.9	0.8	62.2	-0.8	-
LDLFEW06	EW-6	2/11/2008 9:32	9.6	23.3	3.2	63.9	-1.2	-
LDLFEW06	EW-6	3/14/2008 13:46	8.7	21.5	6.3	63.5	-0.8	-
LDLFEW06	EW-6	4/15/2008 13:26	7.2	20.9	4.6	67.3	-0.7	-
LDLFEW06	EW-6	5/8/2008 9:58	6.3	17.3	4.7	71.69	-1.2	-
LDLFEW06	EW-6	6/20/2008 10:32	8.7	18	4.5	68.8	-1.2	-
LDLFEW06	EW-6	7/24/2008 14:54	5.6	13.5	7.6	73.3	-0.9	-
LDLFEW06	EW-6	7/24/2008 14:55	5.6	13.5	7.6	73.3	-0.9	-
LDLFEW06	EW-6	8/8/2008 13:16	4.9	14.3	6.6	74.19	-0.8	-
LDLFEW06	EW-6	8/8/2008 13:17	4.9	14.3	6.6	74.19	-0.8	-
LDLFEW06	EW-6	9/2/2008 14:31	4.3	16.5	3.9	75.29	0	-
LDLFEW06	EW-6	9/2/2008 14:32	4.3	16.5	3.9	75.29	0	-
LDLFEW06	EW-6	10/8/2008 11:10	0	0	20	80	0	-
LDLFEW06	EW-6	11/7/2008 12:50	0	0	20.7	79.3	0.2	-
LDLFEW06	EW-6	12/10/2008 11:45	0	0	20.8	79.19	0.1	-
LDLFEW06	EW-6	1/15/2009 12:34	0	0	20.9	79.1	0.1	-
LDLFEW06	EW-6	2/3/2009 11:37	0	0	20.6	79.4	0.2	-
LDLFEW06	EW-6	3/3/2009 10:05	0	0.1	20.9	79	-0.5	-
LDLFEW06	EW-6	4/1/2009 10:54	0	0	20.6	79.4	0	-
LDLFEW06	EW-6	5/8/2009 9:03	0	0	20.5	79.5	-0.1	-
LDLFEW06	EW-6	6/4/2009 9:23	0.3	9.7	8.8	81.19	-0.1	-
LDLFEW06	EW-6	7/9/2009 10:01	0	0	20.1	79.9	0	-
LDLFEW06	EW-6	8/5/2009 9:10	0	0.1	20.4	79.5	0	-
LDLFEW06	EW-6	9/2/2009 11:13	0	0.3	20.1	79.6	0	-
LDLFEW06	EW-6	10/6/2009 12:45	0	1.8	19.9	78.29	0.1	-
LDLFEW06	EW-6	11/5/2009 10:56	0	0.2	20.3	79.5	-0.2	-
LDLFEW07	EW-7	5/27/2005 9:16	8.9	14.1	8.6	68.4	-1.4	Water Blockage; -

LDLFEW07	EW-7	6/17/2005 12:52	9.6	12.9	9.7	67.8	-1.1	Liquid Inter.; -
LDLFEW07	EW-7	6/24/2005 16:17	19.8	26.8	0	53.4	-0.6	-
LDLFEW07	EW-7	6/28/2005 13:58	9.3	15.7	5.3	69.7	-0.4	-
LDLFEW07	EW-7	7/7/2005 13:32	10.5	13.8	9	66.7	-0.5	-
LDLFEW07	EW-7	7/15/2005 10:02	9.7	11.9	10.7	67.7	-0.5	-
LDLFEW07	EW-7	7/15/2005 10:02	9.7	11.9	10.7	67.7	0	-
LDLFEW07	EW-7	7/19/2005 11:18	11.5	13.7	9.7	65.1	-0.2	-
LDLFEW07	EW-7	8/11/2005 12:23	14.4	17	6.8	61.8	-0.3	-
LDLFEW07	EW-7	8/17/2005 12:35	15.3	17.1	7.4	60.2	0	-
LDLFEW07	EW-7	9/16/2005 9:57	9.4	9.6	13.2	67.8	-0.4	-
LDLFEW07	EW-7	9/23/2005 10:56	16.4	15.8	8.8	59	-0.7	-
LDLFEW07	EW-7	10/7/2005 11:04	15.9	15	9.3	59.8	-1.4	Water Blockage; -
LDLFEW07	EW-7	10/19/2005 14:50	18	16.8	8.2	57	-0.1	-
LDLFEW07	EW-7	10/28/2005 14:55	18	16.8	8.1	57.1	-0.7	-
LDLFEW07	EW-7	11/4/2005 10:42	11.7	11.1	12.1	65.1	-0.6	-
LDLFEW07	EW-7	11/30/2005 8:38	56.7	41.9	1.4	0	-0.6	-
LDLFEW07	EW-7	11/30/2005 10:12	14.4	16	11.9	57.7	-0.3	-
LDLFEW07	EW-7	12/6/2005 15:38	15.4	19.2	6.6	58.8	-0.1	-
LDLFEW07	EW-7	1/6/2006 10:08	22.9	27.8	0	49.3	-0.2	-
LDLFEW07	EW-7	1/9/2006 9:19	0	0	20.9	79.1	-0.2	-
LDLFEW07	EW-7	2/6/2006 9:50	0	0	21.2	78.8	-	-
LDLFEW07	EW-7	3/2/2006 9:35	0	0	20.7	79.3	-	-
LDLFEW07	EW-7	4/6/2006 8:17	0	0	20.6	79.4	0	-
LDLFEW07	EW-7	5/24/2006 9:40	0	0	19.9	80.1	0	-
LDLFEW07	EW-7	6/2/2006 9:20	0	0.2	20.2	79.6	0	-
LDLFEW07	EW-7	7/28/2006 11:02	0.3	0	20.1	79.6	0	-
LDLFEW07	EW-7	8/4/2006 12:55	0	3.9	14.7	81.4	0	-
LDLFEW07	EW-7	9/11/2006 8:55	23.4	24.9	4.2	47.49	-0.8	-
LDLFEW07	EW-7	10/30/2006 16:45	18.8	23.1	7.6	50.5	-0.4	-
LDLFEW07	EW-7	11/8/2006 15:42	20.2	23.3	5.6	50.9	-0.3	-
LDLFEW07	EW-7	12/22/2006 10:30	20.3	24.6	5.8	49.3	-0.9	-
LDLFEW07	EW-7	1/24/2007 9:55	23.6	21.2	6.9	48.3	-1.4	-
LDLFEW07	EW-7	2/22/2007 11:39	29	28.3	1.8	40.9	-0.8	-
LDLFEW07	EW-7	3/7/2007 12:02	27.9	29.2	1.5	41.4	-0.4	-
LDLFEW07	EW-7	4/4/2007 8:59	0	0.4	18.1	81.5	0	-
LDLFEW07	EW-7	5/29/2007 11:47	0	0.6	20.1	79.3	0	-
LDLFEW07	EW-7	6/15/2007 14:53	0	1.8	17.7	80.5	0	-
LDLFEW07	EW-7	7/17/2007 12:45	0	0.9	20.3	78.8	0.1	-
LDLFEW07	EW-7	8/7/2007 14:34	0	0.5	19.3	80.19	0.1	-
LDLFEW07	EW-7	11/14/2007 10:59	0.2	7.2	13.5	79.1	-0.2	-
LDLFEW07	EW-7	11/21/2007 9:41	16.6	24	2.9	56.5	-0.2	-
LDLFEW07	EW-7	11/28/2007 11:31	15	24.3	2.3	58.4	-0.3	-
LDLFEW07	EW-7	12/6/2007 10:41	11.5	22.7	2.1	63.7	-0.2	-
LDLFEW07	EW-7	12/24/2007 11:31	9.4	23.8	2.7	64.1	-0.2	-
LDLFEW07	EW-7	1/11/2008 11:49	7.6	22.7	2.1	67.6	-0.5	-
LDLFEW07	EW-7	2/11/2008 9:27	5.9	19.8	4	70.3	-1	-
LDLFEW07	EW-7	3/14/2008 13:40	5.5	19.5	5.5	69.5	-0.6	-
LDLFEW07	EW-7	4/15/2008 13:22	3.9	18.1	4	74	-0.6	-
LDLFEW07	EW-7	5/8/2008 9:53	4.1	14.5	5.4	76	-1	-
LDLFEW07	EW-7	6/20/2008 10:28	3.9	13.8	6.4	75.89	-1	-
LDLFEW07	EW-7	7/24/2008 14:59	1.8	11.1	7.9	79.19	-0.9	-
LDLFEW07	EW-7	7/24/2008 15:00	1.8	11.1	7.9	79.19	-0.9	-
LDLFEW07	EW-7	8/8/2008 13:11	3.2	12.2	7.7	76.9	-1.1	-
LDLFEW07	EW-7	8/8/2008 13:11	3.2	12.2	7.7	76.9	-1.1	-
LDLFEW07	EW-7	9/2/2008 14:28	3.8	14.1	5.8	76.29	-0.2	-
LDLFEW07	EW-7	9/2/2008 14:29	3.8	14.1	5.8	76.29	-0.2	-
LDLFEW07	EW-7	10/8/2008 11:13	4.4	12.6	6.6	76.4	0	-
LDLFEW07	EW-7	11/7/2008 12:47	3.7	10.9	7.7	77.7	0.2	-
LDLFEW07	EW-7	12/10/2008 12:13	3.3	10	8.5	78.19	0.1	-
LDLFEW07	EW-7	12/10/2008 12:14	3.3	10	8.5	78.19	0.1	-
LDLFEW07	EW-7	1/15/2009 12:26	1.2	17.7	1.5	79.6	0.1	-
LDLFEW07	EW-7	2/3/2009 11:31	0	0	20.6	79.4	0	-
LDLFEW07	EW-7	3/3/2009 10:08	0	0.5	20.6	78.9	-0.2	-

LDLFEW07	EW-7	4/1/2009 10:51	0	0.6	19.5	79.9	0	-
LDLFEW07	EW-7	5/8/2009 8:54	0	1	18.6	80.4	-0.1	-
LDLFEW07	EW-7	6/4/2009 9:13	1	13	5.2	80.8	0	-
LDLFEW07	EW-7	7/9/2009 9:55	1	7.6	8.8	82.6	0	-
LDLFEW07	EW-7	8/5/2009 9:04	0.9	6.7	10.4	82	0	-
LDLFEW07	EW-7	9/2/2009 11:03	0.5	4.8	11.4	83.3	0	-
LDLFEW07	EW-7	10/6/2009 12:38	0.3	4	12.9	82.8	0	-
LDLFEW07	EW-7	11/5/2009 10:47	0.3	3.3	14.3	82.09	-0.1	-
LDLFEW08	EW-8	5/27/2005 9:08	4.1	13.5	6.2	76.2	-1	-
LDLFEW08	EW-8	6/17/2005 12:50	6.1	14.5	5.7	73.7	-0.9	-
LDLFEW08	EW-8	6/24/2005 16:15	6.7	16.2	3.6	73.5	0	-
LDLFEW08	EW-8	6/28/2005 13:56	7.3	17.2	2.8	72.7	-0.2	-
LDLFEW08	EW-8	7/7/2005 13:30	6.8	15.6	4	73.6	-0.3	-
LDLFEW08	EW-8	7/15/2005 10:00	7	14.8	5.3	72.9	-0.4	-
LDLFEW08	EW-8	7/19/2005 11:15	8	16.4	4.2	71.4	0	-
LDLFEW08	EW-8	8/11/2005 12:20	9.2	17.6	2.9	70.3	-0.3	-
LDLFEW08	EW-8	8/17/2005 12:33	9.4	18	3.3	69.3	-0.1	-
LDLFEW08	EW-8	9/16/2005 9:55	10	14.3	7.9	67.8	-0.1	-
LDLFEW08	EW-8	9/23/2005 10:54	10.4	15.3	6.8	67.5	-0.4	-
LDLFEW08	EW-8	10/7/2005 11:02	10.7	14.1	7.7	67.5	-0.8	-
LDLFEW08	EW-8	10/19/2005 14:47	10.6	14.9	5.1	69.4	-0.1	-
LDLFEW08	EW-8	10/28/2005 14:54	9.6	13.9	8.3	68.2	-0.2	-
LDLFEW08	EW-8	11/4/2005 10:38	9.8	13.5	8.3	68.4	-0.2	-
LDLFEW08	EW-8	11/30/2005 10:15	0	0.1	19.6	80.3	-0.1	-
LDLFEW08	EW-8	12/6/2005 15:34	7	17.2	4	71.8	-0.1	-
LDLFEW08	EW-8	1/6/2006 9:34	7	19.6	0.1	73.3	0	-
LDLFEW08	EW-8	1/9/2006 9:21	0	0	20.9	79.1	-0.2	-
LDLFEW08	EW-8	2/6/2006 9:52	0	0	21.4	78.6	-	-
LDLFEW08	EW-8	3/2/2006 9:38	0	0	20.8	79.2	-	-
LDLFEW08	EW-8	4/6/2006 8:19	0	0	20.6	79.4	0	-
LDLFEW08	EW-8	5/24/2006 9:35	0	0	19.7	80.3	0	-
LDLFEW08	EW-8	6/2/2006 9:21	0	0.2	19.9	79.9	0	-
LDLFEW08	EW-8	7/28/2006 10:59	0.3	0.4	19.5	79.79	0	-
LDLFEW08	EW-8	8/4/2006 12:52	0	3.6	15.4	81	0	-
LDLFEW08	EW-8	9/11/2006 8:52	15.1	23.3	2.3	59.3	-0.2	-
LDLFEW08	EW-8	10/30/2006 16:42	14.1	25	0.9	60	-0.2	-
LDLFEW08	EW-8	11/8/2006 15:37	12.7	25.2	0	62.1	0	-
LDLFEW08	EW-8	12/22/2006 10:33	12.1	23.5	3.9	60.5	-1	-
LDLFEW08	EW-8	1/24/2007 9:53	9.9	18.9	5.7	65.5	-1	-
LDLFEW08	EW-8	2/22/2007 11:36	9.8	21.9	1.6	66.69	-0.6	-
LDLFEW08	EW-8	3/7/2007 11:55	8.7	22.5	1.8	67	-0.4	-
LDLFEW08	EW-8	4/4/2007 8:54	0	2.9	17.3	79.8	0	-
LDLFEW08	EW-8	5/29/2007 11:43	0	4.6	16.8	78.6	0	-
LDLFEW08	EW-8	6/15/2007 14:48	0.6	17.6	2	79.8	0	-
LDLFEW08	EW-8	7/17/2007 12:41	0	14.7	3.7	81.6	0	-
LDLFEW08	EW-8	8/7/2007 14:40	0	5.5	13.6	80.9	0.2	-
LDLFEW08	EW-8	11/14/2007 10:55	0.3	15.7	4.6	79.4	-0.1	-
LDLFEW08	EW-8	11/21/2007 9:37	7.2	19.8	2.6	70.4	-0.3	-
LDLFEW08	EW-8	11/21/2007 9:38	7.2	19.8	2.6	70.4	-0.3	-
LDLFEW08	EW-8	11/28/2007 11:28	4.3	19.7	1.7	74.3	-0.2	-
LDLFEW08	EW-8	12/6/2007 10:38	4.8	18.9	2.1	74.19	-0.6	-
LDLFEW08	EW-8	12/24/2007 11:13	5.2	19.3	3.6	71.9	-0.7	-
LDLFEW08	EW-8	1/11/2008 11:46	4.9	18.8	3.4	72.9	-0.9	-
LDLFEW08	EW-8	2/11/2008 9:25	4	17.7	5.4	72.9	-1.6	-
LDLFEW08	EW-8	3/7/2008 10:10	3.7	17.3	4.1	74.9	-1.4	-
LDLFEW08	EW-8	4/15/2008 13:19	2.9	15.8	5.6	75.69	-1.1	-
LDLFEW08	EW-8	5/8/2008 9:51	3.1	14.2	5.5	77.2	-1.3	-
LDLFEW08	EW-8	6/20/2008 10:25	2.5	13.5	6.1	77.9	-1.1	-
LDLFEW08	EW-8	6/20/2008 10:25	2.5	13.5	6.1	77.9	-1.1	-
LDLFEW08	EW-8	7/24/2008 15:03	1.7	11.5	6.8	80	-1.1	-
LDLFEW08	EW-8	7/24/2008 15:04	1.7	11.5	6.8	80	-1.1	-
LDLFEW08	EW-8	8/8/2008 13:08	2.1	12.8	6.5	78.6	-1.5	-
LDLFEW08	EW-8	8/8/2008 13:08	2.1	12.8	6.5	78.6	-1.5	-

LDLFEW08	EW-8	9/2/2008 14:25	2.2	13.3	5.9	78.6	-0.7	-
LDLFEW08	EW-8	9/2/2008 14:26	2.2	13.3	5.9	78.6	-0.7	-
LDLFEW08	EW-8	10/8/2008 11:17	2.3	11.4	6.8	79.49	0	-
LDLFEW08	EW-8	11/7/2008 12:44	1.7	9.7	8.4	80.2	0.1	-
LDLFEW08	EW-8	12/10/2008 12:19	1.4	8.3	9.9	80.39	0.1	-
LDLFEW08	EW-8	12/10/2008 12:21	1.4	8.3	9.9	80.39	0.1	-
LDLFEW08	EW-8	1/15/2009 11:57	0.5	14.7	4.5	80.3	0	-
LDLFEW08	EW-8	1/15/2009 12:02	0.5	14.7	4.5	80.3	0	-
LDLFEW08	EW-8	2/3/2009 11:28	0	12.2	6.6	81.2	0	-
LDLFEW08	EW-8	2/3/2009 11:28	0	12.2	6.6	81.2	0	-
LDLFEW08	EW-8	3/3/2009 10:11	0.4	10.6	9.5	79.5	-0.5	-
LDLFEW08	EW-8	3/3/2009 10:12	0.4	10.6	9.5	79.5	-0.5	-
LDLFEW08	EW-8	4/1/2009 10:46	0	4.2	16.4	79.4	0	-
LDLFEW08	EW-8	5/19/2009 11:11	0	6.7	13.7	79.6	0.1	-
LDLFEW08	EW-8	6/4/2009 9:09	0	5.1	14.1	80.8	0	-
LDLFEW08	EW-8	6/4/2009 9:09	0	5.1	14.1	80.8	0	-
LDLFEW08	EW-8	7/9/2009 9:51	0	3.8	14.3	81.89	0	-
LDLFEW08	EW-8	8/5/2009 9:00	0	3.4	14.8	81.79	0	-
LDLFEW08	EW-8	9/2/2009 10:59	0	3.5	14.8	81.69	0	-
LDLFEW08	EW-8	10/6/2009 12:35	0	3.8	15.4	80.79	0	-
LDLFEW08	EW-8	11/5/2009 10:44	0	3.1	16.3	80.6	-0.2	-

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APPENDIX J

SLR SCREENING RISK EVALUATION



September 11, 2013

Mr. Michael Leacox
Nichols Consulting Engineers, Chtd.
8795 Folsom Blvd, Suite 103
Sacramento, CA 95826

Re: Screening Risk Evaluation for Landfill Gas Emissions, L&D and Florin Perkins Landfills, Sacramento, California

Dear Mike,

SLR International Corporation (SLR) has evaluated the volatile organic chemical (VOC) data analyzed from two landfills in Sacramento, the L&D Landfill and the Florin Perkins Landfill (LP Landfill), from 2011 to date. The goal of this assessment was to evaluate if detected chemical concentrations in soil gas within either of the landfills could adversely impact the health of people living or working near them through volatilization and subsequent inhalation. This is of specific interest to your client since they plan to redevelop an area adjacent to the Landfills as a mixture of properties, including residences and a school.

There are two types of chemical inhalation exposure scenarios. These include indoor air inhalation, which results from direct volatilization from the subsurface through a foundation and into a structure, and outdoor air inhalation, which results from volatilization from the subsurface into ambient air. The latter scenario involves instantaneous dilution with ambient air, and further dispersal of chemical vapors as the air travels downwind. Indoor air inhalation is often of concern due to the relatively enclosed space and lower air turnover inside a building relative to outside. Outdoor air inhalation from subsurface volatilization is rarely a concern due to the dilution that occurs with the atmosphere.

SLR conducted a very conservative screening evaluation in which detected VOCs from analyzed landfill gas probes were directly compared with screening levels developed by CalEPA designed to be protective of all land uses (e.g., residences and schools). This screening evaluation conservatively assumed that the development was built directly on top of each landfill, instead of adjacent to them. In reality, chemicals in the landfill would first need to volatilize to ambient air above the landfill, then be transported through the air to the adjacent area and subsequently inhaled. This process incorporates a very high degree of dilution as the vapors mix with ambient air, greatly reducing the potential concentrations to which relevant receptors may be exposed relative to onsite concentrations. As stated above, outdoor air inhalation is rarely of concern. Therefore, this conservative approach evaluated indoor air inhalation assuming the structures were directly atop the landfill.

Such a conservative screening evaluation provides a simple “reasonable worst-case” estimate of potential exposure to offsite receptors. If the results of this screening evaluation, assuming onsite exposure, indicate there is no concern from VOC exposure, then this conclusion must also be true for offsite locations since air concentrations of VOCs emanating from the landfill will be lower than those present in onsite soil gas. No air modeling need be performed in this situation since any type of air dispersion modeling would result in lower offsite concentrations than those based on onsite measured soil gas. If this conservative screening evaluation indicates a potential for elevated risks, then air dispersion modeling or other more realistic evaluation of landfill gas emissions at offsite locations may be warranted.

1.0 DATA EVALUATION

A landfill gas monitoring program collects data on both the flare inlet and probes situated across each of the landfills approximately four times each year. The following describes the data used to conduct the screening evaluation.

1.1 L&D Landfill

During each monitoring event at the L&D Landfill, a photoionization detector (PID) was used to estimate the total VOC vapor mass at each of the several dozen monitoring points (including different depths at each monitoring location). In some monitoring events, the probe with the highest VOC reading was sent to a laboratory for individual chemical characterization. These probes provide an estimate of what could be emitted from the landfill in the absence of active management through the flare. As such, they should be considered representative of what could be emitted from the landfill mass itself.

SLR evaluated the soil gas sampling data collected at the L&D Landfill between fall 2011 and spring 2013, as reported by SCS Engineers (2011, 2012a,b,c,d, 2013a,b). During these events, the highest total VOC concentration from probe locations (i.e., excluding the flare inlet) was 202 parts per million by volume (ppmv) in April 2012. The next highest maximum VOC reading of 131 ppmv was collected in September 2012. The other five events had maximum VOC readings ranging between 2.2 and 11.5 ppmv. The average VOC concentrations across all probes in a given sampling event was 15 and 20 ppmv for the April and September 2012, and less than 1 ppmv for the other five events (range of 0.12 to 0.88 ppmv).

Not all events had a probe sample analyzed by a laboratory. The samples with the highest reported total VOC concentrations in April and September 2012, as well as the 4.2 ppmv sample from December 2012, were analyzed by an accredited laboratory (Air Toxics of Folsom, California). As stated above, the majority of sampling events had mean VOC concentrations below 1 ppmv. To ensure that the evaluation was representative of potential long-term landfill emissions, a sample with a mean VOC concentration below 1 ppmv was considered for use. Of

those events, the December 2012 event had a mean concentration of 0.68 ppmv and a maximum concentration of 4.2 ppmv. Additionally, this sample had the only detected concentration of vinyl chloride (including those from April and September 2012). Therefore, this event was used for the screening assessment. The sample containing 4.2 ppmv total VOCs was from well location MP-RD, near the northwestern border of the L&D Landfill.

1.2 FP Landfill

SLR evaluated the soil gas sampling data collected at the FP Landfill between November 2011 and June 2013, as reported by Dunn Environmental (2013). During these six quarterly events, 13 probes were evaluated at shallow, medium, and deep depths. Not all VOCs were analyzed in each sample. These data should be representative of potential emissions from the landfill mass itself.

Since individual VOC data are available for each sampling event, and total VOC concentrations were not reported, all of the data were evaluated and maximum concentrations for each detected VOC were identified and conservatively used in the screening assessment (Table 2). Some of the analytical results for this landfill were provided in parts per billion by volume (ppbv); these were converted to milligrams per cubic meter (mg/m^3) for presentation in Table 2.

2.0 SCREENING EVALUATION

California Human Health Screening Levels (CHHSLs), developed by the Office of Environmental Health Hazard Assessment and designed to be protective of unrestricted land use (i.e., residential), were compiled from CalEPA (2010). These CHHSLs are based on protecting residents from vapor intrusion inside their homes, and assume a conservative (i.e., low) attenuation factor from soil vapor to indoor air. These unrestricted land use-based screening levels were compared with the chemical-specific concentrations detected in the landfill probe samples. CHHSLs are provided in Tables 1 and 2 for the VOCs detected at the L&D and FP Landfills, respectively.

To conduct the screening evaluation, each of the detected concentrations was divided by the CHHSL to develop a ratio. Ratios less than one indicate detected concentrations are below the unrestricted land use based screening level. Ratios above one indicate the concentrations are above the screening level. This is analogous to the use of hazard quotients in risk assessment. Each of the calculated ratios was also added to compile an overall ratio of concentrations to screening levels (analogous to a hazard index in risk assessment).

2.1 L&D Landfill

The detected concentrations from sample MP-RD from September 18, 2012 are presented in Table 1. A total of 11 VOCs were detected, ranging from a low of 7.2 micrograms per cubic meter of air (ug/m^3) for benzene to a high of 1,200 ug/m^3 for carbon disulfide.

Results of this screening indicated that all chemical concentrations are below the CHHSLs (Table 1). Therefore, the ratios for all detected chemicals are below one. The highest ratio was 0.64 for vinyl chloride. The ratio sum was 0.8, which is also below one (Table 1). Therefore, the maximum detected VOC concentrations in a representative sampling event was cumulatively below levels of potential concern to human health.

This evaluation assumed that the maximum concentrations are present across the entire landfill, so any development directly above any part of the landfill was assumed to contain these highest reported concentrations. In reality, buildings are not built on the landfill, but are built in adjacent parcels, where concentrations of VOCs in the subsurface (or in air) would be substantially lower. Therefore, this evaluation should be considered very conservative.

2.2 FP Landfill

A total of 17 VOCs were detected in at least one sample, ranging from a low of 0.0036 mg/m³ for 1,2-dichloroethane to a high of 12.9 mg/m³ for Freon 11 (trichlorofluoromethane).

Results of this screening indicated that all detected chemical concentrations are below the CHHSLs except for vinyl chloride at probe location GP-13 (Table 2). With vinyl chloride, the sum of the ratios is 9.7; excluding vinyl chloride the ratio sum is 0.4. Therefore, the following discussion focuses on vinyl chloride at GP-13.

Probe GP-13 is located near the northwestern corner of the FP landfill. All 11 detected vinyl chloride values exceed the CHHSL for unrestricted land use, by almost an order of magnitude (Table 2). The groundwater beneath the FP Landfill flows southeasterly, which is away from the northwest boundary of the site near GP-13 and towards the majority of the landfill mass. Vinyl chloride present in the subsurface soil vapor is likely associated with both soil and groundwater mass. The soil mass will not move, while the groundwater mass will move in the direction of groundwater flow. Therefore, vinyl chloride in this mass will not move off the site towards the northwest but instead is most likely to travel in the direction of groundwater flow, away from the property boundary and towards the flare inlet. When considering that (1) the proposed development is not on the landfill but nearby, (2) subsurface soil vapor movement is not likely to be towards the property boundary to the northwest but instead to the southeast, and (3) outdoor air inhalation at offsite locations is not of concern due to atmospheric dilution, vinyl chloride should not adversely affect receptors living or frequenting the proposed development. Since all other chemicals are below CHHSLs (both individually and combined) and do not present a potential exposure issue, the proposed development should not be impacted by VOCs detected in FP Landfill soil vapor.

This conclusion is further supported by documentation from U.S. Environmental Protection Agency (USEPA) indicating that emissions from a point source are instantaneously diluted when entering the ambient air. As presented in USEPA (2004), just 15 meters away from a point source emission would expect a concentration no greater than about 2% of the emitted

concentration. This concentration would drop an additional order of magnitude (i.e., 0.2% of the emitted concentration) at a distance of 200 meters from the source. While not precise values, these rule-of-thumb estimates demonstrate that the actual concentrations of vinyl chloride (or any other chemical emitted from the landfill) at the proposed offsite development location would be well below any level of potential concern to human health.

3.0 CONCLUSIONS

Based on the results of this conservative screening evaluation, VOCs sourced in either of the landfills should not adversely affect receptors living or frequenting the proposed development.

4.0 CLOSURE

We thank you for the opportunity to assist you and your client in addressing this issue and trust that this provides the information you need to move the development project along. Please call with any questions at 925-229-1411.



Mark E. Stelljes, Ph.D.
Director of Risk Assessment and Toxicology



Laurie Morrill
Staff Scientist

Enc: Tables 1 and 2

REFERENCES

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Table 1
Comparison of Soil Gas Concentrations with Screening Levels ^a
L&D Landfill, Sacramento

Detected Chemical	MP-RD Conc. ^b ug/m³	CHHSLr ^c ug/m³	Conc:SLr Ratio
Freon 12 (dichlorodifluoromethane)	80	--	NA
Chloromethane	530	--	NA
Vinyl chloride	18	28	0.64
Chloroethane	39	--	NA
Freon 11 (trichlorofluoromethane)	380	--	NA
Acetone	72	--	NA
Carbon disulfide	1200	--	NA
2-Butanone (MEK)	16	--	NA
Benzene	7.2	85	0.08
4-Methyl-2-pentanone	9.4	--	NA
Tetrachloroethene	39	470	0.08
		Sum of Ratios:	0.8

Abbreviations:

ug/m³: micrograms per cubic meter of air

Conc: concentration

CHHSLr: residential California Human Health Screening Level

NA: Not applicable

SLr: Residential-based Screening Level

--: Not available

Notes:

- ^a Assumes living in a home built directly above landfill. In reality, concentrations in offsite locations will be much lower than those assumed here (i.e., at the location of MP-RD).
- ^b Soil gas concentration at this onsite location near the northwestern boundary of the landfill. This location had the highest VOC concentration in the December 2012 sampling event.
- ^c CHHSLs for indoor air residential land use from CalEPA (2010).

References:

California Environmental Protection Agency (CalEPA). 2010. Human-Exposure-Based Screening Numbers to Aid Estimation of Cleanup Costs for Contaminated Soil. Office of Environmental Health Hazard Assessment. <http://oehha.ca.gov/risk/chhsltable.html>.

Table 2
Comparison of Soil Gas Concentrations with Screening Levels ^a
FP Landfill, Sacramento

Detected Chemical	Max Conc. ^b mg/m³	CHHSLr ug/L	CHHSLr ^c mg/m³	Conc:SLr Ratio
Freon 12 (dichlorodifluoromethane)	2.1	--	--	NA
Chloromethane	0.012	--	--	NA
Vinyl chloride	0.26	0.028	0.028	9.3
1,2-Dichloroethane	0.0036	0.11	0.110	0.03
Freon 11 (trichlorofluoromethane)	12.9	--	--	NA
Chloroform	0.054	--	--	NA
Acetone	1.2	--	--	NA
Methylene chloride	0.5	--	--	NA
Carbon disulfide	3.1	--	--	NA
Bromodichloromethane	0.027	--	--	NA
Freon 113	0.02	--	--	NA
2-Butanone (MEK)	0.009	--	--	NA
Benzene	0.015	0.085	0.085	0.18
Toluene	0.093	320	320	0.0003
Tetrachloroethene	0.088	0.47	0.47	0.19
Ethylbenzene	0.007	1.1	1.1	0.006
m,p-Xylenes	0.055	800	800	0.00007
			Sum of Ratios:	9.7

Abbreviations:

mg/m³: milligrams per cubic meter of air

CHHSLr: residential California Human Health Screening Level

SLr: Residential-based Screening Level

Conc: concentration

NA: Not applicable

--: Not available

Notes:

^a Assumes living in a home built directly above landfill. In reality, concentrations in offsite locations will be much lower than those assumed here.

^b Maximum soil gas concentration across all analyzed probes between November 2011 and June 2013.

^c CHHSLs for indoor air residential land use from CalEPA (2010).

References:

California Environmental Protection Agency (CalEPA). 2010. Human-Exposure-Based Screening Numbers to Aid Estimation of Cleanup Costs for Contaminated Soil. Office of Environmental Health Hazard Assessment. <http://oehha.ca.gov/risk/chhsltable.html>.

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Florin Perkins and L and D Landfills
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