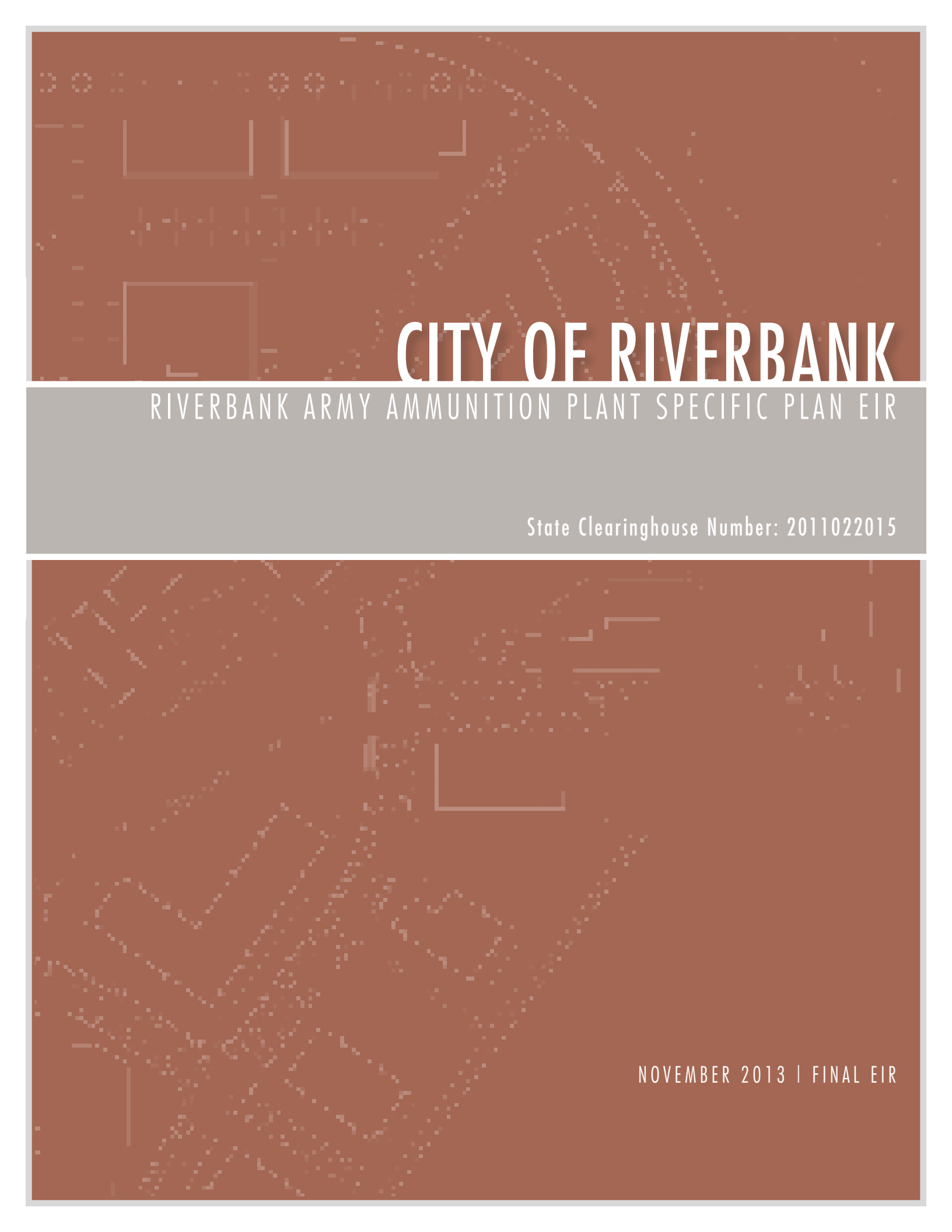


The background of the entire page is a map of the Riverbank area, overlaid with a semi-transparent red layer. The map shows various streets, including Main Street, and landmarks like the Riverbank Armory. The title 'CITY OF RIVERBANK' is prominently displayed in white, bold, sans-serif capital letters across the middle of the red overlay.

CITY OF RIVERBANK

RIVERBANK ARMY AMMUNITION PLANT SPECIFIC PLAN EIR

State Clearinghouse Number: 2011022015

NOVEMBER 2013 | FINAL EIR



CITY OF RIVERBANK

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RIVERBANK LOCAL REDEVELOPMENT AUTHORITY
RAAP SPECIFIC PLAN FINAL EIR
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1 INTRODUCTION

A. Purpose of the Environmental Impact Report

This document provides responses to comments received on the Draft Environmental Impact Report (Draft EIR) for the proposed RAAP Specific Plan (the Project), and it includes revisions to the text and analysis in the Draft EIR made in response to comments. The Draft EIR identified significant impacts associated with the proposed Project, and examined alternatives and recommended mitigation measures that could avoid or reduce potential impacts.

This document, together with the Draft EIR and all Appendices, will constitute the Final EIR if the City of Riverbank Planning Commission certifies it as complete and adequate under the California Environmental Quality Act (CEQA).

B. Environmental Review Process

The City of Riverbank is the lead agency for this EIR.

According to CEQA, lead agencies are required to consult with public agencies having jurisdiction over a proposed project, and to provide the general public and project applicant with an opportunity to comment on the Draft EIR. This Final EIR has been prepared to respond to comments received on the Draft EIR and to clarify any errors, omissions, or misinterpretations of discussions of findings in the Draft EIR. The Draft EIR was made available for public review on March 27, 2013. The Draft EIR was distributed to local and State responsible and trustee agencies and the general public was advised of the availability of the Draft EIR through public notice published in the local newspaper and on the City website. The 45-day public comment period ended on May 20, 2013. Copies of all written comments received on the Draft EIR are contained in this document. These comments and responses to these comments are set out in Chapter 5, Comments and Responses, of this Final EIR.

C. Document Organization

This document is organized into the following chapters:

- ◆ **Chapter 1: Introduction.** This chapter discusses the use and organization of this Final EIR.

- ◆ **Chapter 2: Report Summary.** This chapter is a summary of the findings of the Draft and the Final EIR. It has been reprinted from the Draft EIR with necessary changes made in this Final EIR.
- ◆ **Chapter 3: Revisions to the Draft EIR.** Additional corrections to the text and graphics of the Draft EIR are contained in this chapter. Underline text represents language that has been added to the EIR; text with ~~strikethrough~~ has been deleted from the EIR.
- ◆ **Chapter 4: List of Commenters.** Names of organizations and individuals who commented on the Draft EIR are included in this chapter.
- ◆ **Chapter 5: Comments and Responses.** This chapter contains reproductions of the letters received from agencies and the public on the Draft EIR. The chapter also contains responses keyed to the comments which precede them.

2 REPORT SUMMARY

This summary presents an overview of the analysis contained in Chapter 4.0, Environmental Evaluation. CEQA requires that this chapter summarize the following: 1) areas of controversy; 2) significant impacts; 3) unavoidable significant impacts; 4) implementation of mitigation measures; and 5) alternatives to the project.

A. Project under Review

This Draft EIR provides an assessment of the potential environmental consequences of adoption and implementation of the RAAP Specific Plan (the Plan). This includes development of the site according to adopted land use policies, and development of supporting transportation and utilities infrastructure.

B. Areas of Controversy

The following is a discussion of issues that are likely to be of particular concern to agencies and interested members of the public during the environmental review process. This list does not necessarily identify all areas of concern, but attempts to capture those that are likely to generate greatest interest based on the input received during the scoping process.

- ◆ **Air Quality.** The Plan Area is located within the San Joaquin Valley Air Pollution Control District (SJVAPCD). As such, this Draft EIR will need to examine existing and post-project emissions of criteria, nuisance odors, and potential health impacts associated with toxic air contaminants. This Draft EIR must also discuss the methodology, model assumptions, inputs and results relating to air quality impacts; emission projections of Plan components, and Plan design elements, mitigation measures, and whether the Plan would cumulatively contribute to a net increase of criteria pollutants or precursor for which the area is in non-attainment. Further, the Plan itself would be subject to a variety of SJVAPCD rules and regulations.
- ◆ **Biological Resources.** The Plan Area includes riparian habitats and wetlands that could be impacted by buildout under the Specific Plan. There are also several special-status animals on the RAAP site, such as Swainson's hawks and the western burrowing owl. Potential impacts to these species should be addressed.

- ◆ **Hazards and Hazardous Materials.** The Plan Area has industrial sites that have been contaminated by past activities. Impact to humans from the redevelopment of these parcels should be addressed.
- ◆ **Hydrology and Water Quality.** The Plan Area includes Oakdale Irrigation District lateral, which eventually drains into the Modesto Irrigation District main canal. Runoff impacts and impacts to drainage facilities are concerns that have been requested to be addressed in the EIR.
- ◆ **Transportation and Traffic.** Implementation of the Plan would result in new vehicle and truck trips to and from the RAAP site, which have the potential to impact operations at intersections and along roadway segments in the surrounding area, including the State Highway System. In addition, the Plan would increase vehicular traffic volumes at at-grade highway-rail crossings. The Draft EIR will need to consider mitigation measures to reduce impacts on traffic safety, particularly at railroad crossings.

C. Alternatives to the Project

According to CEQA, an EIR must evaluate a reasonable range of feasible alternatives to the proposed project that would achieve most of the basic project objectives and would avoid or substantially lessen any of the significant impacts of the project. Chapter 5 compares the impacts of three alternatives to those of the project, the No Project Alternative, the Reduced Density Alternative, and the Mixed Use Alternative. The Reduced Density Alternative would be the environmentally superior alternative.

- ◆ **Alternative 1 – No Project Alternative.** Under this alternative, which is required to be analyzed under CEQA, the RAAP site would retain its existing zoning designations and land uses. Since the existing structures could be leased in their current condition, without any further discretionary approval from the City, this alternative assumes re-occupancy of the existing buildings in their current condition.
- ◆ **Alternative 2 – Reduced Density Alternative.** This alternative would reduce the intensity of proposed land uses in order to reduce impacts to air quality, cultural resources, noise, and traffic. This alternative would also prohibit demolition of the existing structures, which contribute to the eligibility of a historic district, to avoid impacts to cultural resources.

- ◆ **Alternative 3 – Reconfigured Site Plan Alternative.** This alternative would reconfigure the site in order to reduce impacts to biological resources and cultural resources. Specifically, the existing structures would not be demolished, and new buildings would have smaller footprints and heights compared to the proposed project.

D. Summary of Impacts and Mitigation Measures

Under CEQA, a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance.

The proposed Plan has the potential to generate environmental impacts in a number of areas that could be significant:

- ◆ Air Quality
- ◆ Biological Resources
- ◆ Cultural Resources
- ◆ Greenhouse Gas Emissions
- ◆ Noise
- ◆ Public Services
- ◆ Transportation and Traffic

In Sections 4.1 through 4.17, significant impacts that have been identified for the Plan are numbered. Each numbered impact is considered significant prior to mitigation, unless it is specifically identified as less than significant. Mitigation measures have been suggested to reduce the effects of significant impacts. As shown in Table 2-1, most of the significant impacts would be reduced to a less-than-significant level if the mitigation measures recommended in this report were implemented. However, in some instances the mitigation measure that is recommended would not be sufficient to reduce a significant impact to a less-than-significant level (for example, Impact AIR-1); these impacts are identified as significant and unavoidable after mitigation.

CEQA allows environmental issues for which there is no likelihood of a significant impact to be “scoped out” during the EIR scoping process, and not analyzed further in the EIR. However, all issues have been analyzed in this Draft EIR.

Table 2-1 presents a summary of impacts and mitigation measures identified in this report. It is organized to correspond with the environmental issues discussed in Chapter 4.

The table is arranged in four columns: 1) environmental impacts, 2) significance prior to mitigation, 3) mitigation measures, and 4) significance after mitigation. A series of mitigation measures is noted where more than one measure may be required to achieve a less-than-significant impact. For a complete description of potential impacts and suggested mitigation measures, please refer to the specific discussions in Chapter 4. Additionally, this summary does not detail the timing of mitigation measures. Timing will be further detailed in the mitigation monitoring and reporting program.

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Aesthetics			
<i>Since there are no significant impacts related to aesthetics as a result of the RAAP Site Specific Plan, no mitigation measures are required.</i>			
Agriculture and Forestry Resources			
<i>Since there are no significant impacts related to agricultural and forest resources as a result of the Plan, no mitigation measures are required.</i>			
Air Quality			
AQ-1: Construction of the Specific Plan could emit significant levels of criteria pollutants, potentially contributing to an existing or projected air quality violation. Because of the project size and the uncertainty of the construction schedule, construction period emissions would be considered to remain significant with mitigation.	S	<u>AQ-1a:</u> Each individual project component of the Specific Plan, <u>including those projects allowed by right</u>, shall be analyzed for significant construction period air quality impacts. For each project-level analysis, a construction emissions estimate will be made <u>by SJVAPCD</u> using the latest SJVAPCD accepted methodology and will be compared to accepted thresholds of significance. Means of mitigating construction period impacts to a less-than-significant level include, but are not limited to, Mitigation Measures AQ-1a through AQ-1d. <u>Since approval of the RAAP Specific Plan may constitute the final discretionary approval by the City of Riverbank, each individual project component, including those projects allowed by right, shall be required to demonstrate to the SJVAPCD compliance with construction period requirements of Rule 9510 prior to issuance of the first building and/or grading permits as a condition of project approval. The applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.</u> <u>AQ-1b:</u> SJVAPCD Regulation VIII Control Measures. <u>Prior to initiation of construction activities, the applicant for an individual, site-specific development under the RAAP Specific Plan shall be required to be implemented at all construction sites the following controls:</u> ◆ All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover; ◆ All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant;	SU

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AQ-1 <i>continued</i>		♦ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking; ♦ With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition; ♦ When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained; ♦ All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. <i>(The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden);</i> ♦ Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant; ♦ Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday; and ♦ Any site with 150 or more vehicle trips per day shall prevent carryout and trackout. <u>AQ-1c: Enhanced Control Measures. Prior to initiation of construction activities, the applicant for an individual, site-specific development under the Specific Plan, shall implement the following measures shall should be implemented at construction sites when required to mitigate significant PM₁₀ impacts (note, these measures are to be implemented in addition to Regulation VIII requirements):</u> ♦ Limit traffic speeds on unpaved roads to 15 mph; and ♦ Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.	

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AQ-1 <i>continued</i>		<u>AQ-1d</u>: Additional Control Measures. The following control measures are strongly encouraged by the SJVAPCD at construction sites that are large in area, located near sensitive receptors, or which for any other reason warrant additional emissions reductions: ◆ Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site; ◆ Install wind breaks at windward side(s) of construction areas; ◆ Suspend excavation and grading activity when wind exceeds 20 mph (<i>Regardless of wind speed, and owner/ operator must comply with Regulation VIII's 20 percent opacity limitation.</i>); and ◆ Limit area subject to excavation, grading, and other construction activity at any one time.	
		<u>AQ-1e</u>: The following measures may be implemented to mitigate emissions from construction equipment exhaust: ◆ Use of alternative-fueled or catalyst-equipped diesel construction equipment; ◆ Minimize idling time (e.g. 5-minute maximum); ◆ Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use; ◆ Replace fossil-fueled equipment with electrically-driven equivalents (provided they are not run via a portable generator set); ◆ Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways; and ◆ Implement activity management (e.g. rescheduling activities to reduce short-term impacts).	

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AQ-2: Operation of the Specific Plan could emit significant levels of criteria pollutants, potentially contributing to existing or projected air quality violations.	S	<u>AQ-2:</u> Each individual project component of the Specific Plan, <u>including those projects allowed by right</u>, shall be analyzed for significant construction period air quality impacts. For each project-level analysis, an operational emissions estimate will be made <u>by SJVAPCD</u> using the latest SJVAPCD accepted methodology and will be compared to accepted thresholds of significance. Means of mitigating operational period impacts to a less-than-significant level include, but are not limited to, improving transportation and transit design (e.g., improved bikeways, transit infrastructure, and pedestrian enhancements); contributing a project's fair share to the Air Quality Mitigation Fee Fund; and contributing a project's fair share towards Transportation Control Measures implementation programs. <u>For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.</u> <u>Since approval of the RAAP Specific Plan may constitute the final discretionary approval by the City of Riverbank, each individual project component, including those projects allowed by right, shall be required to demonstrate to the SJVAPCD compliance with operational period requirements of Rule 9510 prior to issuance of the first building and/or grading permits as a condition of project approval. For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.</u> <u>Each individual project, including those projects allowed by right, that introduce significant sources of air pollutant emissions or stationary sources of TACs shall complete separate ambient air quality analysis and health risks assessments to ensure that violations of ambient air quality standards do not occur, including an analysis of cumulative emissions from the RAAP Specific Plan. For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.</u>	SU
Biological Resources			
BIO-1: Buildout of the Plan would involve the demolition or redevelopment of buildings on the RAAP site where the maternity roosts of Townsend's big-eared bats are potentially present. This could result in the destruction, disturbance, or interference with the maternity roosts of a special-species bat.	S	BIO-1: Implementation of the Plan shall avoid disturbance to the maternity roosts of special-status bats during the breeding season in accordance with the following procedures for Pre-Construction Special-Status Bat Surveys and Subsequent Actions. No more than two weeks in advance of any demolition or construction activity involving concrete breaking or similarly noisy or intrusive activities, that would commence during the pup-rearing season (April 15 through August 31), or winter hibernacula season	LTS

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-1 <i>continued</i>		(October 15 through March 1, depending on weather conditions) a qualified bat biologist, acceptable to the CDFG, shall conduct pre-demolition surveys of all potential special-status bat breeding habitat in the vicinity of the planned activity. Depending on the survey findings, the following actions shall be taken to avoid potential adverse effects on breeding special-status bats: 1. If active roosts are identified during pre-construction surveys, a no disturbance buffer will be created by the qualified bat biologist, in consultation with the CDFG, around active roosts during the breeding season. The size of the buffer will take into account factors such as the following: ◆ Noise and human disturbance levels at the project site and the roost site at the time of the survey and the noise and disturbance expected during the construction activity; ◆ Distance and amount of vegetation or other screening between the project site and the roost; and ◆ Sensitivity of individual nesting species and the behaviors of the bats. 2. If pre-construction surveys indicate that no roosts of special-status bats are present, or that roosts are inactive or potential habitat is unoccupied, no further mitigation is required. 3. Pre-construction surveys are not required for demolition or construction activities scheduled to occur during the non-breeding and winter hibernacula season (September 1 through October 15, and March 1 through April 15). 4. Noisy demolition or construction activities as described above (or activities producing similar substantial increases in noise and activity levels in the vicinity) commencing during the non-breeding season and continuing into the breeding season do not require surveys (as it is assumed that any bats taking up roosts would be acclimated to project-related activities already under way). However, if trees are to be removed during the breeding season, the trees would be surveyed for roosts prior to their removal, according to the survey and protective action guidelines 1a through 1c, above. 5. Bat roosts initiated during demolition or construction activities are presumed to be unaffected by the activity, and a buffer is not necessary.	

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TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIO-1 <i>continued</i>		6. Destruction of roosts of special-status bats and overt interference with roosting activities of special-status bats shall be prohibited. 7. The noise control procedures for maximum noise, equipment, and operations identified in Chapter 4.12, Noise, of this EIR shall be implemented. Implementation of the above mitigation measure would reduce potential impacts to the maximum extent practicable.	
Cultural Resources			
CUL-1: Implementation of the RAAP Specific Plan would alter the significance of an historic resource. By removing individual structures that contribute to the eligibility of an historic district, the RAAP's ability to convey its importance to local and national history is significantly altered, the resource may not be eligible for inclusion on the CRHR.	S	CUL-1: Prior to the demolition of buildings and structures comprising the eligible district, an Historic American Building Survey/Historic American Engineering Record (HABS/HAER) recordation shall be conducted for the affected structures. HABS/HAER recordation could include archiving of original plans, undertaking archival research for preparation of a report, making measured drawings, and completing a photographic study of the structures.	SU
Geology and Soils			
<i>Since there are no significant impacts related to land use as a result of the Plan, no mitigation measures are required.</i>			
Greenhouse Gas Emissions			
GHG-1: Development and operation of the Specific Plan could generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	S	GHG-1: Each individual project component of the Specific Plan shall be analyzed for significant GHG impacts. For each project-level analysis, appropriate BPS will be implemented or a 29 percent GHG emission reduction compared to BAU will be demonstrated. Means of mitigating GHG impacts to a less-than-significant level include, but are not limited to, technological controls for stationary sources (such as for boilers, generators, and process heaters) and the GHG emission reduction measures (such as energy efficiency, transportation, and site design measures) for development projects listed in the SJVAPCD CCAP. <u>For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.</u>	LTS

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Mineral Resources			
<i>There are no significant impacts related to agricultural resources as a result of the proposed Plan. Therefore no mitigation measures are required.</i>			
Hazards and Hazardous Materials			
<i>Since there are no significant impacts related to hazardous materials as a result of the Plan, no mitigation measures are required.</i>			
Hydrology and Water Quality			
<i>There are no significant impacts related to hydrology and water quality as a result of the proposed Plan. Therefore no mitigation measures are required.</i>			
Land Use and Planning			
<i>Since there are no significant impacts related to land use as a result of the Plan, no mitigation measures are required.</i>			
Noise			
NOISE-1: The nearest residential land uses are 110 feet west of the plan area, across Claus Road. Noise levels resulting from on-site activities may exceed City standards for stationary noise sources, as described in General Plan Tables NOISE-2 and NOISE-3 (Tables 4.12-6 and 4.12-7 in this EIR), at nearby residential receivers if the noise generated by such uses are not regulated or adequately mitigated.	S	NOISE-1: In order to reduce noise generated by activities occurring within the RAAP site, the following mitigation measures shall be implemented: ◆ Project level acoustical analyses shall be constructed for noise-generating land uses proposed as part of the Specific Plan. Exterior noise levels at residential land uses interfacing active parks, commercial land uses, or industrial land uses shall be maintained in accordance with the standards presented in the General Plan and Municipal Code. ◆ Parking lot cleaning activities in commercial and industrial areas shall be limited to daytime and evening hours (7 a.m. to 10 p.m.). ◆ Trash compactors in commercial and industrial areas shall be located away from adjacent residential receivers or shielded with noise barriers. ◆ Loading dock hours of operation shall be limited to daytime and evening hours (7 a.m. to 10 p.m.).	LTS

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
NOISE-2: Existing noise environments at outdoor activity areas of residences along Claus Road are greater than 65 dBA L _{dn} , and would increase by more than 1.5 dBA as a result of transportation noise following implementation of the Specific Plan.	S	NOISE-2: Noise reduction methods shall be implemented to reduce generated by activities resulting from the Specific Plan. These measures shall include, but are not limited to the following: ◆ Paving streets with "quieter" pavement types such as Open-Grade Rubberized Asphaltic Concrete would reduce noise levels by 2 to 3 dBA depending on the existing pavement type, traffic speed, traffic volumes, and other factors. ◆ New or larger noise barriers could reduce noise levels by 5 dBA L_{dn}. Final design of such barriers, including an assessment of their feasibility and reasonableness, should be completed during project level review. ◆ Sound insulation treatments to affected buildings, such as sound rated windows and doors, could reduce noise levels in interior spaces. ◆ Installing traffic calming measures to slow traffic along Claus Road could provide qualitative improvement by smoothing out the rise and fall in noise levels caused by speeding vehicles.	SU
NOISE-3: While the duration and phasing of construction activities for the Specific Plan is unknown at this time, it is conceivable that a particular receiver or group of receivers would be subject to construction noise levels in excess of 60 dBA L _{eq} and the ambient by 5 dBA for durations exceeding one construction season.	S	NOISE-3: To reduce noise levels generated by construction, the following standard construction noise control measures shall be included in all construction projects within the plan area: ◆ Limit construction to the hours of 7:00 a.m. to 6:30 p.m. on weekdays, and 9:00 a.m. to 5:00 p.m. on Saturdays, with no noise-generating construction on Sundays or holidays. ◆ Equip all internal combustion engine-driven equipment with mufflers which are in good condition and appropriate for the equipment. ◆ Unnecessary idling of internal combustion engines should be strictly prohibited. ◆ Locate stationary noise generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. Construct temporary noise barriers to screen stationary noise generating equipment when located near adjoining sensitive land uses. Temporary noise barriers could reduce construction noise levels by 5 dBA. ◆ Utilize "quiet" air compressors and other stationary noise sources where technology exists. ◆ Route all construction traffic to and from the project site via designated truck routes where possible. Prohibit construction related heavy truck traffic in residential areas where feasible.	LTS

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
NOISE-3 <i>continued</i>		◆ Control noise from construction workers' radios to a point that they are not audible at existing residences bordering the project site. ◆ The contractor shall prepare and submit to the City for approval a detailed construction plan identifying the schedule for major noise-generating construction activities. ◆ Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g. starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.	
NOISE-4: Traffic volume increases in the vicinity of the Specific Plan vicinity will result with the development of the plan area and other planned developments in the southeast portion of the City of Riverbank.	S	NOISE-4: Implement Mitigation Measure NOISE-2.	SU
Population and Housing			
<i>Since there are no significant impacts related to cultural resources as a result of the Plan, no mitigation measures are required.</i>			
Public Services			
PUB-1: In order to improve response times and ISO ratings, a new fire station is required either in the Bruinville planning area or in the RAAP Plan Area. The addition of a new Fire Station on the east side of the City near the RAAP would be necessary as the proposed Plan builds out. The new station would need at least nine personnel hired for staffing purposes (3 per shift), and the station would need a new Type 1 Engine, Type 3 Engine, and a Water Tender for apparatus. This would be a <i>significant</i> impact.	S	PUB-1: <u>The City shall coordinate with Stanislaus Consolidated Fire Protection District to ensure fair share development fees for future development resulting from the implementation of the RAAP Specific Plan to ensure equipment, staffing, and facilities for emergency medical services, urban search and rescue, hazardous materials emergency response, and other relevant needs, as appropriate.</u> The additional personnel, station, and apparatus shall be incorporated into the RAAP Specific Plan and have benchmarks for when the staffing and facilities are added.	LTS
Recreation			
<i>Since there are no significant impacts related to parks and recreational facilities as a result of the Plan, no mitigation measures are required.</i>			

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Transportation and Traffic			
TRANS-1: The Claribel Road/Coffee Road intersection operates at LOS F during both the AM and PM peak hours and signal warrants are met during both peak hours in the Existing Condition. The addition of project traffic would worsen operations and increase delay.	S	TRANS-1: Future developers within the RAAP area shall contribute their fair share, through the payment of local and regional fees, towards the construction of left-turn pockets on all approaches <u>to the Claribel Road/Coffee Road intersection</u> with appropriate storage and deceleration length, and signalization of the intersection. This improvement would improve the service level <u>at the Claribel Road/Coffee Road intersection</u> to LOS C or better (the level of service standard for this intersection) in both peak hours, as shown on Table 4.16-9. Stanislaus County plans to signalize this intersection as part of the Claribel Road widening project. Funding for signalization is provided from Congestion Mitigation and Air Quality (CMAQ) Federal funding. Construction is scheduled to begin in 2013.	LTS
TRANS-2: The Claribel Road/Roselle Avenue intersection operates at LOS F during both the AM and PM peak hours and signal warrants are met during both peak hours in the Existing Condition. The addition of project traffic would worsen operations and increase delay.	S	TRANS-2: Future developers within the RAAP area shall contribute their fair share, through the payment of local and regional fees, towards the construction of left-turn pockets on all approaches <u>to the Claribel Road/Roselle Avenue intersection</u> with appropriate storage and deceleration length, and signalization of the intersection. This improvement would improve the service level <u>at the Claribel Road/Roselle Avenue intersection</u> to LOS D or better (the level of service standard for this intersection) in both peak hours, as shown on Table 4.16-9. Signalization of this intersection is programmed in the Stanislaus County 2011-2012 budget using CMAQ funding and is scheduled for construction in 2015/2016.	LTS
TRANS-3: Future development within the RAAP area would add truck traffic to intersections on State Route 108, specifically at the intersections of Atchison Street (State Route 108)/1st Street, State Route 108/Claus Road and State Route 108/Patterson Road. As these intersections do not currently accommodate the turning movements of large trucks, this is considered a potentially significant impact based on the significance criteria.	S	TRANS-3: Future developers within the RAAP area shall contribute their fair share towards improvements at the intersections identified above, through the payment of local and regional traffic fees, that improve turning radii for large trucks <u>to provide adequate turning radii in conformance with STAA requirements at intersections on State Route 108, specifically at the intersections of Atchison Street (State Route 108)/1st Street, State Route 108/Claus Road and State Route 108/Patterson Road, though the payment of local and regional traffic fees. No other improvements have been identified for are needed to mitigate project impacts at these intersections.</u>	SU

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
TRANS-4: Future Development in the RAAP Specific Plan area could substantially increase hazards due to a design feature or incompatible uses.	S	TRANS-4: Although construction impacts are expected to be temporary and less-than-significant, for all future development in the plan area, the following is recommended to minimize the effects of construction related activity: ◆ Prepare a construction management plan, including: • Project staging plan to maximize on-site storage of materials and equipment. • A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak hours; lane closure proceedings; signs, cones, and other warning devices for drivers; and designation of construction access routes. • Permitted construction hours. • Location of construction staging. • Provision of on-site parking for all construction employees, site visitors, and inspectors. • Provisions for street sweeping to remove construction related debris on public streets.	LTS
TRANS-5: The Claribel Road/Coffee Road intersection is projected to operate at LOS F during the AM and LOS E during the PM peak hours. The addition of project traffic would worsen deficient operations in both peak hours. This is considered significant based on the significance criteria, as LOS C is the standard for this intersection.	S	TRANS-5: Construction of Phase 2 of the North County Corridor Project, which would connect the Phase 1 project, which is planned to terminate at McHenry Avenue, to State Route 99, is expected to shift sufficient traffic from this intersection that LOS C would be achieved. Alternatively, intersection improvements beyond the cross-section identified in the General Plan could be provided to improve peak hour operations, such as dual left-turn lanes and right-turn only lanes on all approaches. This improvement would improve the service level to LOS E during the AM peak hour and LOS D during the PM peak hour, as shown on Table 4.16-10. These service levels are considered deficient for this intersection. Given the uncertainty of constructing parallel capacity or the feasibility of additional improvements beyond the planned General Plan cross section, this impact is expected to remain significant and unavoidable.	SU
TRANS-6: The Claribel Road/Oakdale Road intersection is projected to operate at LOS F during the AM and PM peak hours. The addition of project traffic would worsen LOS F operations. This is considered significant based on the significance criteria, as LOS D is the standard for this intersection.	S	TRANS-6: Construction of Phase 2 of the North County Corridor Project, which would connect the Phase 1 project, which is planned to terminate at McHenry Avenue, to State Route 99, is expected to shift sufficient traffic from this intersection that LOS D would be achieved. Alternatively, construction of additional improvements at this intersection that would result in acceptable service levels, including dual left-turn pockets on the northbound, westbound, and eastbound approaches could be constructed. This improvement would improve the service level to LOS D or better (the level of service standard for this intersection) in both peak hours, as shown in Table 10 of the TIA, reducing this impact to a less-than-significant level. However, given the uncertainty,	SU

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		tainly of constructing parallel capacity or the feasibility of additional improvements beyond the planned General Plan cross section, this impact is expected to remain significant and unavoidable.	
Utilities and Service Systems			
<i>Since there are no significant impacts related to utilities and service systems as a result of the Plan, no mitigation measures are required.</i>			
UTIL 1: Buildout of the Plan would require improvements to existing stormwater facilities. The existing stormwater pipes have areas where there are improperly functioning gravity systems, cracked or offset joints, or vertical and/or horizontal pipe cracks. Other deficiencies in the existing stormwater system include the squirrel hole in the reservoir and the undersized main line piping. With the existing deficiencies, the proposed Plan would have the potential to increase flooding. This would be a <i>significant impact</i> .	S	UTIL 1: The Stormwater Master Plan for the proposed Plan recommends the following measures: ◆ Manholes should be repaired to ensure the lids seal properly to prevent inflow and infiltration of storm water during rain events. ◆ In order to mitigate the possible contamination of polychlorinated biphenyls (PCBs) within the storm drain, one of the following options could be implemented: ◆ Clean and apply a lining or coating to all affected storm drain pipes; ◆ Replace affected storm drain pipes with larger pipes;	LTS
UTIL 1 continued	S	◆ A combination of lining a portion of the storm drain pipes and replacing other storm drain pipes; this involves adding a second pipe between the north reservoir lift station and the diversion structure located near Gate 10. Also includes replacing storm drain piping, with larger pipe size, from the diversion structure to the Building Group. ◆ Current County Standards require new systems to have a capacity to convey storm events equal to the 10-year return period or larger. Lining the interior of affected piping is a cost effective way to mitigate potential contamination of pipes while providing approximately the same (slightly improved) level of service in relation to stormwater conveyance. ◆ If there are opportunities to upgrade the lift station pumping capacity in the future, the LRA should use that opportunity to significantly increase lift station capacity. Increasing size (i.e. conveyance capacity) of storm drain piping upstream from the north lift station will not be effective unless the lift station capacity is increased. ◆ Improvements to the existing north reservoir should be completed at the LRA's earliest opportunity. The squirrel hole(s) in the reservoir bank should be repaired and the lower outlet valve returned to the normal operating position (i.e. closed). This would allow more storage capacity of the reservoir prior to discharge, which	LTS

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		would allow more time for suspended soils to settle out in stormwater traveling through the reservoir during rainfall events. Currently, the exterior bank slope is approximately 2:1 (horizontal to vertical). The slopes may be reduced as much possible within the constraints of space allotted to the reservoir (i.e. approximately 3:1) to reduce the possibility of the rodent holes extending through the bank. Additionally, the repaired slopes may be hardened with rock or crushed brick to make it more difficult for rodents to penetrate the surface. ◆ To determine the performance of the reservoir outlets, a detailed hydraulic analysis of the OID piping would need to be accomplished. The 10 year and 50 year storm events produce approximately 4.0 MGAL and 4.2 MGAL, respectively. Therefore, the combined outlet piping would need to discharge approximately 1.0 to 1.2 MGAL to prevent the reservoir from becoming full and having water overtopping the banks during these types of storm events. In order to discharge 1.2 MGAL, the outlet piping would need to discharge at an average rate of 3.2 cubic feet per second (cfs) over a 24 hour period. This is a relatively small flow rate and most likely the discharge piping connected to the OID piping and overflow piping would prevent the reservoir from reaching maximum capacity during these types of storms events (i.e. approximately 3.2 cfs is the minimum required and unrestricted gravity flow to OID piping would be approximately 10 cfs, if the OID piping was empty and able to accept full gravity flow). ◆ If the properties around the reservoir are developed, additional analysis to determine the OID piping hydraulic capacity should be conducted and, if needed, the north reservoir should be increased in size to prevent potential flooding of the newly developed sites. By removing the earthen divider and extending the basin to the northeast by approximately 120 feet, the reservoir capacity could be increased to approximately 4.5 MGAL. This would provide the additional capacity necessary to ensure the basin can adequately store stormwater runoff from larger events even if the OID has little or no capacity to receive water from the reservoir outlets. ◆ Based on the results of percolation testing, the soils within the site appear to have adequate capacity to infiltrate stormwater directed into basins, swales, or rain gardens. Final design for these areas of the site should include additional percolation testing in order to estimate infiltration rates at the locations and depths of final design basins and other LID components proposed within these areas. ◆ Future development should include LID features to the maximum extent practical,	
UTH-1 <i>continued</i>			

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		and at a minimum LID components (in addition to large infiltration basins) should cover 15 percent of the total site area. This minimum percentage is based on the example site layout conducted as part of this study that incorporates LID features into a practical commercial site layout. The LID components may include, but not be limited to the following: • Shallow infiltration basins • Bioretention basin / rain gardens • Porous concrete within parking stalls • Rainwater harvesting system (cisterns and/or rain barrels) ◆ In addition to structural LID components, sites should be designed to minimize continuous impervious surfaces where possible. This includes providing landscaping around buildings and breaks between roadways and sidewalks. This also includes generally reducing the amount of impervious surfaces around sites.	

3 REVISIONS TO THE DRAFT EIR

This chapter presents specific changes to the Draft EIR that are being made in response to comments made by the public. In each case, the revised page and location on the page is presented, followed by the textual or tabular revision. Double-underline text represents language that has been added to the EIR; text with ~~strickethrough~~ has been deleted from the EIR.

The revisions contained herein merely clarify and amplify the information in the Draft EIR, and none of the revisions constitutes significant changes to the analysis contained in the Draft EIR.

All changes to Chapter 2 of the Draft EIR, including changes to Table 2-1, Summary of Impacts and Mitigation Measures, are included in Chapter 2 of this Final EIR.

Chapter 4.3 Air Quality

Section E.1.d. beginning on page 4.3-32 of the Draft EIR is hereby added as included below. As a part of the text edits below, Figure 4.3-2 and Figure 4.3-3, have been added to the Draft EIR and are also include below. In addition, Appendix B (attached to this Final EIR) has been modified to include additional information pertaining to the Health Risk Assessment.

a. Expose Sensitive Receptors to Substantial Pollutant Concentrations (*LTS*)

The health risk evaluation for the Specific Plan involved the calculation of future diesel particulate matter (DPM) emissions and associated health risks for on-site vehicle traffic at the project site~~for traffic on Claus Road, which is the main road adjacent to the project site. It was assumed that the primary contributor to potential health risks from on-site traffic would be from DPM emissions from diesel-fueled trucks.~~ Emissions were calculated using the latest version of the CARB EMFAC2011 emissions model. Potential cancer risks for residents in the vicinity of the project site~~along Claus Road~~ were calculated using health risk assessment methods recommended by the California Office of Environmental Health Hazard Assessment¹ (OEHHA) and the SJVAPCD.¹. The health risk assessment method includes calculation of ambient DPM concentrations at residential receptor loca-

¹⁰ OEHHA 2003. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. August 2003.

¹¹ San Joaquin Valley Air Pollution Control District, *Guidance for Air Dispersion Modeling*, Draft 01/07 Rev 2.0.

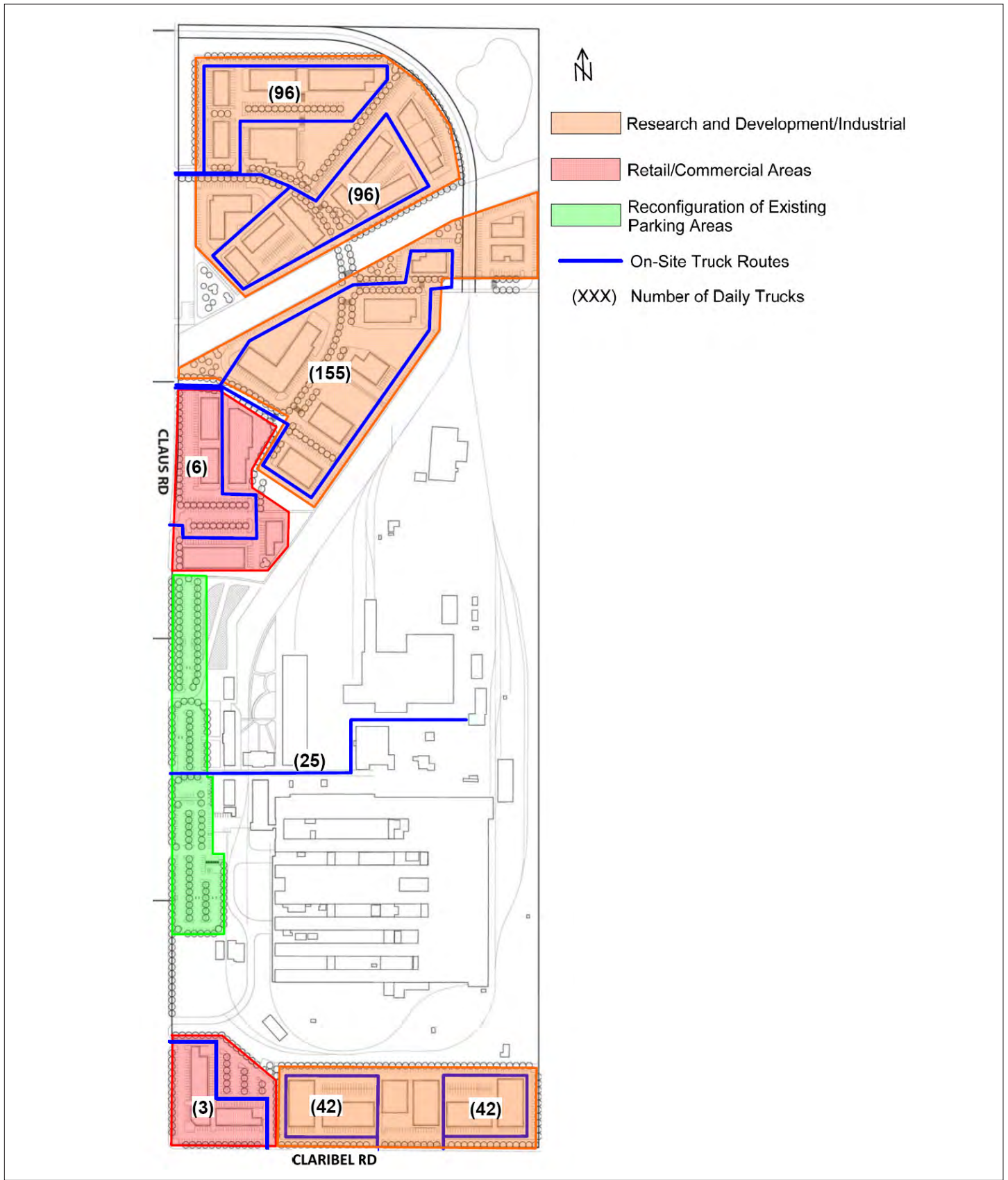
tions using an air quality dispersion model, and then calculating cancer risks using the modeled concentrations along with appropriate DPM-specific risk factors.

Roadway and receptor coordinates, meteorological data, traffic volumes, and the emission factors were used with the AERMOD air quality dispersion model to predict annual DPM concentrations from roadway traffic which were then used to calculate lifetime cancer risks at the residential receptor locations.

i. Traffic Emissions

The project would include areas for research and development (R&D) and industrial uses at the northern and southern portions of the site, retail development adjacent to Claus road near the central and southern portions of the site, and realignment of existing parking areas in the central portion of the site near Claus road. These areas are identified in Figures 4.3-2 and 4.3-3. Also shown on the figures are potential truck routes within each area that were used for modeling.

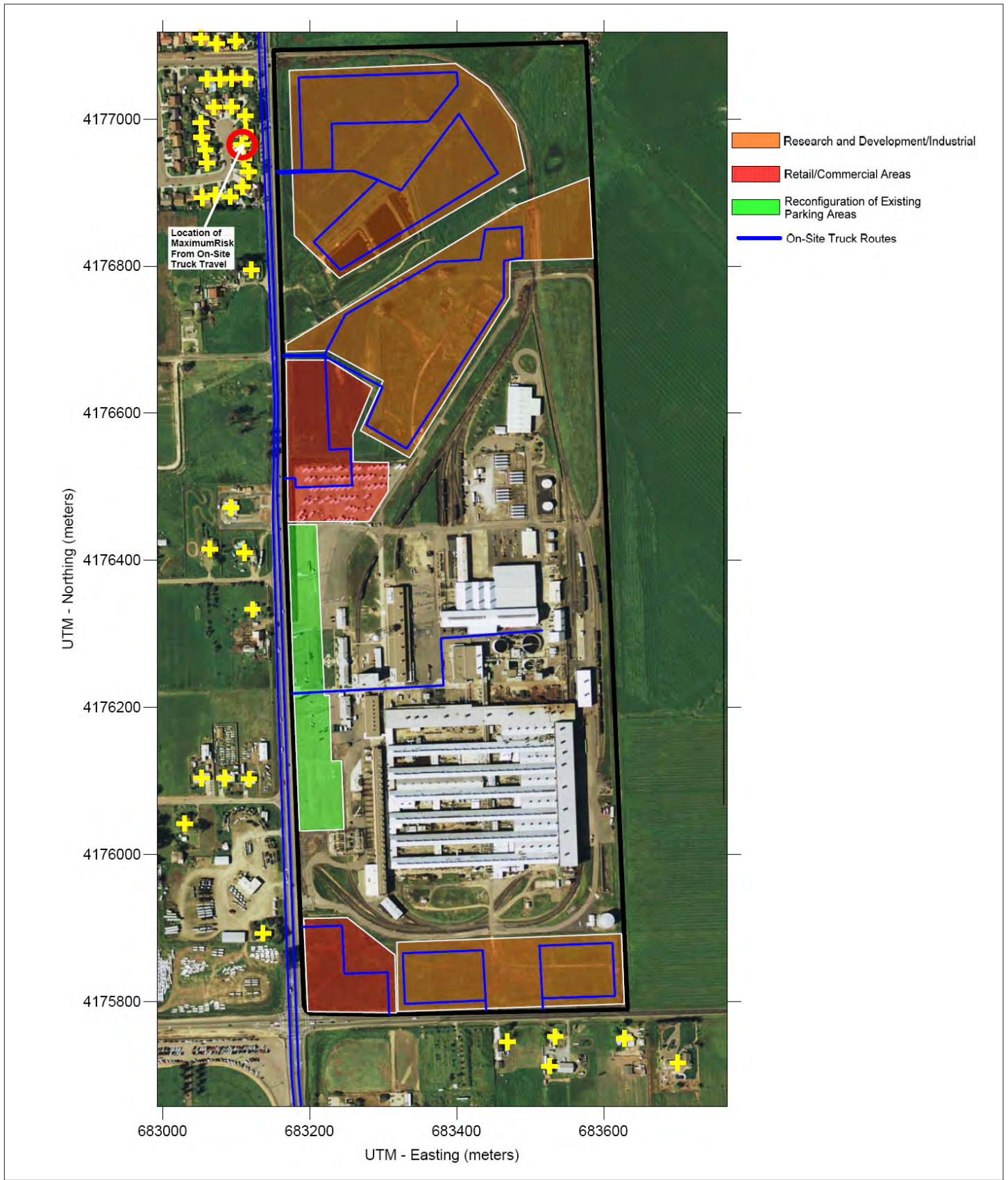
DPM emissions for ~~traffic on Claus Road~~ on-site truck travel and idling were calculated using emission factors from the CARB EMFAC2011 emissions model with default information for Stanislaus County along with future traffic volumes and vehicle mixes on Claus Road. EMFAC2011 is the most recent version of the CARB motor vehicle emission factor model. Emission factors were developed for the year 2020 assuming that all trucks are heavy-duty diesel-fueled trucks and would be traveling at 15 miles per hour. For truck idle emissions, each truck was assumed to idle for 10 minutes while at the project site (5 minutes per truck trip). Based on traffic data for the project, as described in Section 4.16, Transportation and Traffic, there would be about 465 trucks accessing the site daily, or 930 daily truck trips. These truck trips were distributed among the different development areas of the project and associated truck routes based on the projected size and type of new land use. Figure 4.3-1 includes the estimated number of daily trucks traveling in each project area. Emissions from these trucks were then used in the air quality dispersion modeling of on-site truck travel to predict DPM concentrations at residences in the vicinity of the project and along the Claus Road ~~using the projected mix of cars and trucks traveling on Claus Road north and south of the project site. Based on traffic data for the project there would be more traffic on Claus Road north of the site than south of the site. The average daily traffic volumes were estimated as 4,957 passenger vehicles and 428 trucks, or 54 percent of the total traffic, traveling north of the project site on Claus Road, and 4,223 passenger vehicles and 428 trucks, or 46 percent of the total traffic, traveling on Claus~~



Source: Illingworth_ & Rodkin, 2013.

FIGURE 4.3-2

PROJECT SITE, DEVELOPMENT AREAS, ON-SITE TRUCK ROUTES, AND DAILY TRUCK TRAFFIC



Source: Illingworth_&_Rodkin, 2012.

FIGURE 4.3-3

PROJECT SITE, ON-SITE TRUCK ROUTES FOR DISPERSION MODELING, AND
NEARBY RECEPTOR LOCATIONS

~~Road south of the site. In calculating emissions it was assumed that all trucks would be heavy duty trucks and the passenger vehicles would be comprised of light duty autos and trucks. An average travel speed of 45 mph (the posted speed limit on Claus Road) was assumed for all vehicles and used with the EMFAC2011 model in calculating DPM emission factors. These emissions were then used in the air quality dispersion modeling of vehicles traveling on Claus Road to predict DPM concentrations at residences along the roadway. The DPM emission factor calculations are shown in Appendix B.~~

ii. Roadway Dispersion Modeling

Dispersion modeling of roadway DPM emissions was conducted using the EPA's AERMOD dispersion model. This model is recommended by the SJVAPCD for this type of analysis. The AERMOD model predicts pollutant concentrations at receptors located in areas of flat or complex terrain from a variety of emission source types including point, area, volume, and line sources. Emissions from these source types can be continuous or vary by hour, day of the week, month, or season. For this analysis the model was run using regulatory default dispersion options and rural dispersion coefficients due to the rural nature of the project area. Alt-~~hough~~Since there is little variation in terrain elevations in the project area, the model was run ~~in flat terrain mode~~using USGS digital terrain data for the project area.

A 5-year set of hourly meteorological data (2005 - 2009) from the Modesto Airport, located about 6.25 miles south-southwest of the project site, was used in the modeling. ~~These meteorological data were prepared by the SJVAPCD,¹² from the Modesto Airport, located about 6.25 miles south southwest of the project site, was used in the modeling.~~ Other inputs to the model included road geometry, receptor locations, and hourly emission rates. ~~The truck~~Vehicle emissions were modeled as line sources (a series of volume sources along a path) along ~~Claus Road~~the on-site truck travel routes shown in Figure 4.3-2. ~~In the vicinity of the project site, Claus Road is a two lane road and was modeled using one line source per travel direction. Since the traffic volumes and associated emissions on Claus Road are different north and south of the project site, two roadway segments were used in the modeling. One road segment represents traffic from the project site north on Claus Road to Kentucky Avenue and the other segment represents Claus Road from of the project site south to just beyond Plainview Road. Emission source parameters used in modeling these line sources were consistent with SJVAPCD Air Quality Modeling Guidance.¹² The trucks were modeled as traveling at 15 mph with an emission~~

¹² http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

release height of 6 feet and the road widths were model at 12 feet. Since the actual locations where trucks may be idling at the site are unknown, the truck idle emissions were included in the emissions for modeling truck travel.

Locations of residential receptors in the project area and along Claus Road were identified from aerial images and included in the modeling as locations for the model to calculate annual average DPM concentrations. ~~Sixty-five~~Seventy-two residential receptors were identified and included in the modeling. A receptor height of 1.5 meters (4.9 feet) was used for all receptors modeled. An aerial view showing the project site, roadway segments modeled, and the locations of the residential receptors is provided in Figure 4.3-1. The maximum-modeled DPM concentration ~~occurred along the road segment south of the project site, north of Plainview Road, of 0.0103 $\mu\text{g}/\text{m}^3$ occurred west of the northern portion of the project site along Claus Road~~ at UTM coordinates 683,228.5 meters east, 4,175,260.6 meters north and is shown in Figure 4.3-1. This is the maximum exposed individual (MEI) location. Inputs used for the modeling are included in Appendix B.

iii. Cancer Risk Prediction

Cancer risk ~~to residents near Claus Road from roadway to off-site residents from on-site truck~~ DPM emissions were assessed following the SJVAPCD recommended methods and their significance evaluated based on the SJVAPCD threshold of an incremental cancer risk of ten excess cases per million at the Maximally Exposed Individual (MEI). Exceeding this threshold would result in a significant impact. ~~The ten in one million risk level is also used by the Air Toxics “Hot Spots” (AB 2588) program and California’s Proposition 65 as the public notification level for air toxic emissions from existing sources.~~

Potential cancer risks from inhalation of toxic air contaminants are calculated based on the annual average concentration, an inhalation dose, and the cancer potency of the toxic air contaminant. The inhalation dose depends on a person’s breathing rate, exposure time and frequency of exposure, and the exposure duration over a 70-year lifetime period. These parameters vary depending on whether the exposure is considered to occur for a residential location, at a workplace, or at a school. For this analysis, potential exposures to DPM concentrations from ~~on-site truck traffic on Claus Road~~ to residents ~~along the roadway~~ were evaluated. For residential exposures, the SJVAPCD recommends using a breathing rate of 393 liters per day per

¹³ San Joaquin Valley Air Pollution Control District, *Guidance for Air Dispersion Modeling*, Draft 01/07 Rev 2.0.

kilogram of body weight (L/kg-day). Residential receptors are assumed to be exposed for 24 hours per day for 350 days per year over a 70-year lifetime.

Potential health risks to nearby residents from on-site truck ~~residents along Claus Road from roadway~~ DPM emissions were evaluated assuming constant exposure to DPM concentrations ~~based on emissions during 2020~~ for an entire 70-year lifetime exposure period (SJVAPCD recommended method) based on emissions during 2020. The maximum increased MEI cancer risk for a 70-year exposure was ~~4.36.5~~ in ~~one~~ million. Details on the cancer risk calculations are included in Appendix B.

Under the SJVAPCD CEQA Guidelines ~~GAMAQI~~, an incremental risk of greater than ten cases per million at the MEI would be considered a significant impact. The increased cancer risk associated with on-site truck traffic along Claus Road is less than 10 in a million, and therefore would be a *less-than-significant* impact.

Section E.2. beginning on page 4.3-37 of the Draft EIR is hereby added as follows:

2. Cumulative Impacts

The proposed Plan would not contribute to a regional impact by increasing the rate of vehicle use at a greater rate than population growth. However, build out of the Specific Plan with mitigation may have NOx emissions that could exceed the GAMAQI thresholds. That would mean the project could have a cumulatively considerable increase in air pollutant emissions that may contribute to future violations of ozone ambient air quality standards. As a result, this cumulative impact would be considered *significant*.

In addition to assessing potential health risks from the project's on-site DPM emissions from truck travel, potential risks from project trucks traveling off-site were evaluated and the combined cancer risk from on-site and off-site truck DPM emissions identified.

As discussed in the DEIR, cancer risks from project truck travel along Claus Road was evaluated. The maximum cancer risk from truck travel on Claus Road occurred south of the project site at a residence on the east side of Claus Road, north of Plainview Road. The maximum cancer risk at this location was 6.5 in one million.

In order to assess the combined cancer risks from both on-site and off-site project truck traffic, the on-site emission sources, discussed above, and the off-site emis-

sion sources, discussed in the DEIR, were modeled with the AERMOD model to identify the location and magnitude of the maximum DPM concentration and associated maximum cancer risk at a residential receptor. The modeling was conducted using the same methodology as described above. The maximum combined impact from on-site and off-site truck traffic occurred at the same location, discussed above, where the maximum impact from the on-site truck travel occurred. The total cancer risk from on-site and off-site truck DPM emissions was 9.0 in one million. Cumulative cancer risk at this level is considered to be a *less-than-significant impact*.

Mitigation Measure AQ-1a on page 4.3-38 of the Draft EIR, is hereby amended as follows:

Mitigation Measure AQ-1a: Each individual project component of the Specific Plan, including those projects allowed by right, shall be analyzed for significant construction period air quality impacts. For each project-level analysis, a construction emissions estimate will be made by SJVAPCD using the latest SJVAPCD accepted methodology and will be compared to accepted thresholds of significance. Means of mitigating construction period impacts to a less-than-significant level include, but are not limited to, Mitigation Measures AQ-1a through AQ-1d.

Since approval of the RAAP Specific Plan may constitute the final discretionary approval by the City of Riverbank, each individual project component, including those projects allowed by right, shall be required to demonstrate to the SJVAPCD compliance with construction period requirements of Rule 9510 prior to issuance of the first building and/or grading permits as a condition of project approval. The applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.

Mitigation Measure AQ-1b on page 4.3-38 of the Draft EIR, is hereby amended as follows:

Mitigation Measure AQ-1b: SJVAPCD Regulation VIII Control Measures. Prior to initiation of construction activities, the applicant for an individual, site-specific development under the RAAP Specific Plan~~The following controls shall be required to be implemented at all construction sites~~ the following controls:

- ◆ All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover;

- ◆ All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant;
- ◆ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking;
- ◆ With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition;
- ◆ When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained;
- ◆ All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. *(The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden);*
- ◆ Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant;
- ◆ Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday; and
- ◆ Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.

Mitigation Measure AQ-1c on page 4.3-39 of the Draft EIR, is hereby amended as follows:

Mitigation Measure AQ-1c: Enhanced Control Measures. Prior to initiation of construction activities, the applicant for an individual, site-specific development under the Specific Plan. The following measures ~~shall~~^{should} be implemented at construction sites when required to mitigate significant PM₁₀ impacts (note, these measures are to be implemented in addition to Regulation VIII requirements):

- ◆ Limit traffic speeds on unpaved roads to 15 mph; and
- ◆ Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

Mitigation Measure AQ-2 on page 4.3-41 of the Draft EIR, is hereby amended as follows:

Mitigation Measure AQ-2: Each individual project component of the Specific Plan, including those projects allowed by right, shall be analyzed for significant construction period air quality impacts. For each project-level analysis, an operational emissions estimate will be made by SJVAPCD using the latest SJVAPCD accepted

methodology and will be compared to accepted thresholds of significance. Means of mitigating operational period impacts to a less-than-significant level include, but are not limited to, improving transportation and transit design (e.g., improved bikeways, transit infrastructure, and pedestrian enhancements); contributing a project's fair share to the Air Quality Mitigation Fee Fund; and contributing a project's fair share towards Transportation Control Measures implementation programs. For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.

Since approval of the RAAP Specific Plan may constitute the final discretionary approval by the City of Riverbank, each individual project component, including those projects allowed by right, shall be required to demonstrate to the SJVAPCD compliance with operational period requirements of Rule 9510 prior to issuance of the first building and/or grading permits as a condition of project approval. For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.

Each individual project, including those projects allowed by right, that introduce significant sources of air pollutant emissions or stationary sources of TACs shall complete separate ambient air quality analysis and health risks assessments to ensure that violations of ambient air quality standards do not occur, including an analysis of cumulative emissions from the RAAP Specific Plan. For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.

Section B.3.a.iii. on page 4.3-12 of the Draft EIR is hereby added as follows:

iii. Rule 9410 – Employer Based Trip Reduction

The purpose of this rule is reduce vehicle miles traveled from private vehicles used by employees to commute to and from their worksites to reduce emissions of NO_x, ROG and particulate matter (PM₁₀ and PM_{2.5}). The rule applies to employers with at least 100 employees. Employers are required to implement an Employer Trip Reduction Implementation Plan (ETRIP) for each worksite with 100 or more Eligible Employees to meet applicable targets specified in the rule. Employers are required to facilitate the participation of in the development of ETRIPs by providing information to its employees explaining the requirements and applicability of this rule. Employers are required to prepare and submit an ETRIP for each worksite to the District. The ETRIP must be updated annually. Under this rule, employers shall collect information on the modes of transportation used for each Eligible Employee's commutes both to and from work for every day of the Com-

mute Verification Period, as defined in using either the Mandatory Commute Verification Method or a Representative Survey Method. Annual reporting includes the results of the Commute Verification for the previous calendar year along with the measures implemented as outlined in the ETRIP and, if necessary, any updates to the ETRIP.

Table 4.3-2 on page 4.3-13 of the Draft EIR is hereby amended as follows:

Pollutant	Averaging Time	California Standards		National Standards		
		Concentration	Method	Primary	Secondary	Method
...						
Fine Particulate Matter (PM _{2.5})	24 Hour	--	--	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	45 µg/m³ 12 µg/m ³		

Section Cb.i. beginning on page 4.3-20 of the Draft EIR is hereby amended as follows:

The SJVAPCD adopted the 2008 PM_{2.5} Plan on April 30, 2008. The plan was approved by CARB on May 22, 2008 and US EPA on November 9, 2011. This plan will assure that the Valley will attain the 1997 PM_{2.5} standard and make progress toward attaining the new 2006 standards as well as the state standard. The plan uses control measures to reduce NO_x, which also leads to fine particulate formation in the atmosphere. The plan incorporates measures to reduce direct emissions of PM_{2.5}, including a strengthening of the wood burning rules. Recent and proposed action by CARB to reduce diesel particulate matter emissions from on- and off-road mobiles sources is contained in the plan. Attainment plans for the 2006 PM_{2.5} NAAQS are not required until December 2012. The District approved the 2012 PM_{2.5} Plan on December 20, 2012. The plan was then approved by the California Air Resources Board (ARB) on January 24, 2013. This plan assures the San Joaquin Valley Air Basin will comply with the Environmental Protection Agency (EPA) 2006 PM_{2.5} standard by the 2019 deadline.

Chapter 4.7 Greenhouse Gas Emissions

Mitigation Measure GHG-1 on page 4.7-17 of the Draft EIR is hereby amended as follows:

Mitigation Measure GHG-1: Each individual project component of the Specific Plan shall be analyzed for significant GHG impacts. For each project-level analysis, appropriate Best Performance Standards will be implemented or a 29 percent GHG emission reduction compared to BAU will be demonstrated. Means of mitigating GHG impacts to a less-than-significant level include, but are not limited to, technological controls for stationary sources (such as for boilers, generators, and process heaters) and the GHG emission reduction measures (such as energy efficiency, transportation, and site design measures) for development projects listed in the SJVAPCD CCAP. For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.

Chapter 4.14 Public Services

Mitigation Measure PUB-1 on page 4.16-14 of the Draft EIR is hereby amended as follows:

Mitigation Measure PUB-1: The City shall coordinate with Stanislaus Consolidated Fire Protection District to ensure fair share development fees for future development resulting from the implementation of the RAAP Specific Plan to ensure equipment, staffing, and facilities for emergency medical services, urban search and rescue, hazardous materials emergency response, and other relevant needs, as appropriate. The additional personnel, station, and apparatus shall be incorporated into the RAAP Specific Plan and have benchmarks for when the staffing and facilities are added.

Chapter 4.16 Transportation and Traffic

Mitigation Measure TRANS-1 beginning on page 4.16-38 of the Draft EIR is hereby amended as follows:

Mitigation Measure TRANS-1: Future developers within the RAAP area shall contribute their fair share, through the payment of local and regional fees, towards the construction of left-turn pockets on all approaches to the Claribel Road/Coffee Road intersection with appropriate storage and deceleration length, and signalization of the intersection. This improvement would improve the service level at the Claribel Road/Coffee Road intersection to LOS C or better (the level of service standard for this intersection) in both peak hours, as shown on Table 4.16-9. Stan-

Stanislaus County plans to signalize this intersection as part of the Claribel Road widening project. Funding for signalization is provided from Congestion Mitigation and Air Quality (CMAQ) Federal funding. Construction is scheduled to begin in 2013.

Mitigation Measure TRANS-2 on page 4.16-39 of the Draft EIR is hereby amended as follows:

Mitigation Measure TRANS-2: Future developers within the RAAP area shall contribute their fair share, through the payment of local and regional fees, towards the construction of left-turn pockets on all approaches to the Claribel Road/Roselle Avenue intersection with appropriate storage and deceleration length, and signalization of the intersection. This improvement would improve the service level at the Claribel Road/Roselle Avenue intersection to LOS D or better (the level of service standard for this intersection) in both peak hours, as shown on Table 4.16-9. Signalization of this intersection is programmed in the Stanislaus County 2011-2012 budget using CMAQ funding and is scheduled for construction in 2015/2016.

Mitigation Measure TRANS-3 on page 4.16-40 of the Draft EIR is hereby amended as follows:

Mitigation Measure TRANS-3: Future developers within the RAAP area shall contribute their fair share towards improvements ~~at the intersections identified above, though the payment of local and regional traffic fees, that improve turning radii for large trucks to provide adequate turning radii in conformance with STAA requirements at intersections on State Route 108, specifically at the intersections of Atchison Street (State Route 108)/1st Street, State Route 108/Claus Road and State Route 108/Patterson Road, though the payment of local and regional traffic fees.~~ No other improvements ~~have been identified for~~ are needed to mitigate project impacts at these intersections.

Chapter 4.17 Utilities and Service Systems

Section C.2. beginning on page 4.17-28 of the Draft EIR is hereby amended as follows:

In general, under existing conditions, stormwater runoff is collected in numerous inlets located around the site that connect to a main storm drain line. The main storm drain line carries flows towards the north, opposite the surface grade. At Gate 10, flow is directed through a diversion structure. A valve located at the discharge of the diversion structure remains open allowing stormwater runoff to travel

through the diversion structure and down a 36-inch pipe towards a lift station, located adjacent to the north stormwater reservoir. Pumps 1 and 2 of the lift station convey flow into the north reservoir. This reservoir is designed as a detention basin that allows for temporary stormwater runoff to facilitate settling of suspended sediment. ~~Two outlets, with approximately one foot of elevation difference, are provided in the reservoir to discharge water into the Oakdale Irrigation District (OID) 30-inch diameter line that runs parallel to the north side of the reservoir. Between rain events, some water remains in the reservoir, below the outlets, and either evaporates, infiltrates into the ground, or is used by the vegetation that grows in the basin. The lift station located near the reservoir has a third smaller pump that conveys stormwater from the lift station directly to the OID pipe during periods of excessive rain.~~

The discussion of cumulative stormwater impacts on pages 4.17-31 and 4.17-32 of the Draft EIR is hereby amended as follows: 5. Cumulative Impacts

This section analyzes potential impacts to stormwater systems that could occur from the proposed Plan in combination with other reasonably foreseeable projects in the surrounding area. The geographic scope of this analysis is taken as the City of Riverbank SOI, as defined in the Riverbank General Plan.

As described above, all the stormwater from the Plan Area would be treated on-site. Development under the proposed Plan would comply with draft Specific Plan Goal PUB-2 and Policy PUB-3 and includes low impact development and sustainable design approaches for stormwater management. Any new development occurring within the RAAP site would be required to comply with the RAAP Specific Plan as well as the Stormwater Plan prepared for the site. Future conditions within the RAAP site would be evaluated on a project-by-project bases as new development applications are submitted to the City in order to address any project-specific impacts. Because stormwater would be treated on-site and future stormwater would be mitigated as projects come forward, cumulative impacts on stormwater facilities would be considered *less than significant*. ~~With Mitigation Measure UTH-1 in place, cumulative impacts to stormwater systems would therefore be *less than significant*.~~

The discussion of stormwater impacts and mitigation measures beginning on page 4.17-32 of the Draft EIR is hereby amended as follows:

6. Impacts and Mitigation Measures

~~The Specific Plan would not result in any significant impacts to stormwater; therefore, no mitigation measures are necessary. The following impacts and mitigation measures have been identified with regard to stormwater.~~

~~**Impact UTIL 1:** Buildout of the Plan would require improvements to existing stormwater facilities. The existing stormwater pipes have areas where there are improperly functioning gravity systems, cracked or offset joins, or vertical and/or horizontal pipe cracks. Other deficiencies in the existing stormwater system include the squirrel hole in the reservoir and the undersized main line piping. With the existing deficiencies, the proposed Plan would have the potential to increase flooding. This would be a *significant* impact.~~

~~**Mitigation Measure UTIL 1:** The Stormwater Master Plan for the proposed Plan recommends the following measures:~~

- ~~◆ Manholes should be repaired to ensure the lids seal properly to prevent inflow and infiltration of storm water during rain events.~~
- ~~◆ In order to mitigate the possible contamination of polychlorinated biphenyls (PCBs) within the storm drain, one of the following options could be implemented:~~
 - ~~◆ Clean and apply a lining or coating to all affected storm drain pipes;~~
 - ~~◆ Replace affected storm drain pipes with larger pipes;~~
 - ~~◆ A combination of lining a portion of the storm drain pipes and replacing other storm drain pipes: this involves adding a second pipe between the north reservoir lift station and the diversion structure located near Gate 10. Also includes replacing storm drain piping, with larger pipe size, from the diversion structure to the Building Group.~~
- ~~◆ Current County Standards require new systems to have a capacity to convey storm events equal to the 10 year return period or larger. Lining the interior of affected piping is a cost effective way to mitigate potential contamination of pipes while providing approximately the same (slightly improved) level of service in relation to stormwater conveyance.~~
- ~~◆ If there are opportunities to upgrade the lift station pumping capacity in the future, the LRA should use that opportunity to significantly increase lift station capacity. Increasing size (i.e. conveyance capacity) of storm drain~~

~~piping upstream from the north lift station will not be effective unless the lift station capacity is increased.~~

- ◆ ~~Improvements to the existing north reservoir should be completed at the LRA's earliest opportunity. The squirrel hole(s) in the reservoir bank should be repaired and the lower outlet valve returned to the normal operating position (i.e. closed). This would allow more storage capacity of the reservoir prior to discharge, which would allow more time for suspended soils to settle out in stormwater traveling through the reservoir during rainfall events. Currently, the exterior bank slope is approximately 2:1 (horizontal to vertical). The slopes may be reduced as much possible within the constraints of space allotted to the reservoir (i.e. approximately 3:1) to reduce the possibility of the rodent holes extending through the bank. Additionally, the repaired slopes may be hardened with rock or crushed brick to make it more difficult for rodents to penetrate the surface.~~
- ◆ ~~To determine the performance of the reservoir outlets, a detailed hydraulic analysis of the OID piping would need to be accomplished. The 10-year and 50-year storm events produce approximately 4.0 MGAL and 4.2 MGAL, respectively. Therefore, the combined outlet piping would need to discharge approximately 1.0 to 1.2 MGAL to prevent the reservoir from becoming full and having water overtopping the banks during these types of storm events. In order to discharge 1.2 MGAL, the outlet piping would need to discharge at an average rate of 3.2 cubic feet per second (cfs) over a 24-hour period. This is a relatively small flow rate and most likely the discharge piping connected to the OID piping and overflow piping would prevent the reservoir from reaching maximum capacity during these types of storm events (i.e. approximately 3.2 cfs is the minimum required and unrestricted gravity flow to OID piping would be approximately 10 cfs, if the OID piping was empty and able to accept full gravity flow).~~
- ◆ ~~If the properties around the reservoir are developed, additional analysis to determine the OID piping hydraulic capacity should be conducted and, if needed, the north reservoir should be increased in size to prevent potential flooding of the newly developed sites. By removing the earthen divider and extending the basin to the northeast by approximately 120 feet, the reservoir capacity could be increased to approximately 4.5 MGAL. This would provide the additional capacity necessary to ensure the basin can adequately store stormwater runoff from larger events even if the OID has little or no capacity to receive water from the reservoir outlets.~~

- ◆ ~~Based on the results of percolation testing, the soils within the site appear to have adequate capacity to infiltrate stormwater directed into basins, swales, or rain gardens. Final design for these areas of the site should include additional percolation testing in order to estimate infiltration rates at the locations and depths of final design basins and other LID components proposed within these areas.~~
- ◆ ~~Future development should include LID features to the maximum extent practical, and at a minimum LID components (in addition to large infiltration basins) should cover 15 percent of the total site area. This minimum percentage is based on the example site layout conducted as part of this study that incorporates LID features into a practical commercial site layout. The LID components may include, but not be limited to the following:~~
 - ◆ ~~Shallow infiltration basins~~
 - ◆ ~~Bioretention basin / rain gardens~~
 - ◆ ~~Porous concrete within parking stalls~~
 - ◆ ~~Rainwater harvesting system (cisterns and/or rain barrels)~~
- ◆ ~~In addition to structural LID components, sites should be designed to minimize continuous impervious surfaces where possible. This includes providing landscaping around buildings and breaks between roadways and sidewalks. This also includes generally reducing the amount of impervious surfaces around sites.~~

Significance After Mitigation: This impact would be *less than significant* after implementation of this mitigation measure.

4 LIST OF COMMENTORS

A. Written Comments

Written comments were received from the following agencies, organizations, and individuals. Letters are arranged by category, and then by date received. Letters received after the close of the comment period are listed at the end of their respective categories, in the order received. Each letter listed below has been reproduced and is included in Appendix H.

State Agencies

- SA1. Dave Singleton, Program Analyst, State of California, Native American Heritage Commission. March 29, 2013.
- SA2. Trevor Cleak, Environmental Scientist, Central Valley Regional Water Quality Control Board. May 6, 2013.
- SA3. Tom Dumas, Chief, Office of Metropolitan Planning, State of California, Department of Transportation. May 10, 2013.
- SA4. Scott Morgan, Director, State Clearinghouse, State of California, Governor's Office of Planning and Research. May 13, 2013.

Regional Agencies

- RA1. Celia Aceves, Risk & Property Analyst, Modesto Irrigation District. May 2, 2013.
- RA2. John B. Davids, District Engineer, Oakdale Irrigation District. May 9, 2013.
- RA3. Irena Torrey, Bureau Manager, Bureau of Environmental Management, San Francisco Public Utilities Commission. May 13, 2013.
- RA4. Shirley Koelmas, Fire Inspector, Stanislaus Consolidated Fire Protection District. May 17, 2013.
- RA5. Mark Loeser, Management Consultant, Environmental Review Committee, Stanislaus County. May 20, 2013.
- RA6. Dave Warner, Director of Permit Services, San Joaquin Valley Air Pollution Control District. May 20, 2013.

Local Agencies

- LA1. Brad Wall, Principal Planner, City of Modesto. May 17, 2013.

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5 COMMENTS AND RESPONSES

This chapter includes a reproduction of, and responses to, comments received during the Draft EIR public review period. Comments are presented in their original format in Appendix H, along with annotations that identify each comment letter.

Responses to those individual comments are provided in this chapter alongside the text of each corresponding comments. Comment letters in this chapter follow the same order as listed in Chapter 4 of this Final EIR and are categorized by:

- ◆ Written Comments:
 - State Agencies
 - Regional Agencies
 - Local Agencies

Where the same comment has been made more than once, a response may direct the reader to another numbered comment and response. Where a response requires revisions to the Draft EIR, the revisions are explained and shown in Chapter 3 of this Final EIR.

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Native American Heritage Commission		
SA1-1	The Native American Heritage Commission (NAHC) has reviewed the CEQA Notice regarding the above referenced project. In the 1985 Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.	This comment provides an introduction to the comment letter, and does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
SA1-2	The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resources, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064(b)). To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required: Contact the appropriate Information Center for a record search to determine :If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources, which we know that it has. The NAHC recommends that known cultural resources recorded on or adjacent to the APE be listed in the draft Environmental Impact Report. If an additional archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey. We suggest that this be coordinated with the NAHC, if possible. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure pursuant to California Government Code Section 6254.10. Contact has been made to the Native American Heritage Commission for a Sacred Lands File Check, and cultural resources have not been identified to your agency. A list of appropriate Native American Contacts for consultation concerning the project site has been provided and is attached to this letter	This comment outlines the steps required to mitigate potential impacts to historical resources. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.

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	to determine if the proposed active might impinge on any cultural resources. Lack of surface evidence of archeological resources does not preclude their subsurface existence.	
SA1-3	Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans. Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.	As discussed on page 4.5-21 of the Draft EIR, although there have been previous ground-disturbing activities within the RAAP Plan Area, and it is unlikely that undiscovered archeological resources are located within the site, it is possible that undiscovered archeological resources are present in the RAAP Plan Area. General Plan Policies CONS 2.1, CONS-2.2, CONS-2.4, and CONS-2.5 address this issue. In addition, Section 5097 of the Public Resources Code specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land, and Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC.
Central Valley Regional Water Quality Control Board		
SA2-1	Pursuant to the State Clearinghouse's 27 March 2013 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the Request for Review for the Draft Environmental Impact Report for the Riverbank Army Ammunition Plant Specific Plan Project, located in Stanislaus 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.	This comment provides an introduction to the comment letter. No further response is required.
SA2-2	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 per-	This comments provides a summary of the requirements of the Construction Storm Water General Permit. Construction-related impacts to hydrology are discussed on pages 4.10-8 through 4.10-10 of the Draft EIR. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.

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	formed 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.	
SA2-3	Phase I and II Municipal Separate Storm Sewer System (MS4) Permits. 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/. (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.	This comments provides a summary of the requirements of the Phase I and II Municipal Separate Storm Sewer System (MS4) Permits. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
SA2-4	Industrial Storm Water General Permit 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_perm	This comments provides a summary of the requirements of the Industrial Storm Water General Permit. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.

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SA2-5	Clean Water Act Section 404 Permit 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.	This comments provides a summary of the requirements of the Clean Water Act Section 404 Permit. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
SA2-6	Clean Water Act Section 401 Permit - Water Quality Certification 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.	This comments provides a summary of the requirements of the Clean Water Act Section 401 Permit. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
SA2-7	Waste Discharge Requirements 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.	This comments provides a summary of waste discharge requirements. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.

TABLE 5-1 **COMMENTS AND RESPONSES MATRIX**

Comment Number	Comment	Response
Department of Transportation		
SA3-1	The California Department of Transportation (Department) appreciates the opportunity to review and comment on the DEIR for the for the RAAP Specific Plan which includes 173 acres. This includes 146 acre primary site of which portions are currently underdeveloped and a 27 acre evaporation pond. The Department has the following comments:	This comment acknowledges that the Department of Transportation has reviewed the EIR and introduces ensuing comments, but does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
SA3-2	I. The existing plus approved/pending projects scenario should be included as part of the scenarios being analyzed.	The Draft EIR considered the impacts of the Project on the existing transportation system as well as the future transportation system considering approved, pending and planned developments over the next 20 to 30 years, consistent with CEQA guidelines. As the project is a Specific Plan to guide future development on the site and no specific projects have been proposed, the level of analysis provided in the Draft EIR appropriately identifies the range of impacts that could occur as the site is developed. As Projects are proposed for the site, additional review may be required, but no Existing Plus Approved scenario will be evaluated at this time.
SA3-3	2. Please provide the electronic files that will be used to analyze the traffic study when the traffic study is submitted.	The TIA was included as Appendix E of the Draft EIR. The Synchro files used in the analysis have been forwarded to the commenter.
SA3-4	3. Various intersections along SR-108 do not meet STAA off-tracking requirements for turning movements. The project needs to consider the impact of any potentially generated STAA truck traffic turning movements at intersections due to its development since this would create a safety issue at these intersections.	The Draft EIR acknowledged that the Project could increase truck traffic through intersections on State Route 108 that do not currently meet STAA requirements and a significant impact was identified, as stated on page 4.16-31. The project is required to pay local and regional fees that would fund improvements to the state highway system and the local street network. Potential improvements to these intersections include minor re-striping, intersection modification and/or pavement widening. The StanCOG 2011 RTP identifies some improvements to the SR 108/First Street intersection and available funding is identified for other various intersection improvements, including development fees that each development would be required to pay. However, as the timing of improving SR-108 intersections is unknown, this impact is considered significant and unavoidable. It is also noted that from the Project site, trucks can access the STAA network via Claribel Road (which becomes State Route 219 at McHenry Avenue) with a full interchange to SR 99. Both SR 219 and SR 99 are designated STAA Routes. Additionally, the noted intersections are approximately 2 miles from the Project site and it is beyond the scope of a single project to modify state highways to meet STAA requirements.
SA3-5	Please refer to the letter to the City of Riverbank dated July 19, 2010 regarding related intersections along SR 108 that do not meet STAA. If a copy is needed for reference, please contact the Joshua Swearingen (contact information below).	The letter dated July 19, 2010 identified the intersections of Patterson Road, Santa Fe Street, First Street and Claus Road with SR 108 as intersections that do not meet STAA requirements for one or more turning movements. The intersections of Patterson Road, First Street and Claus Road with SR 108 were included in the impact analysis. Level of service impacts were not identified at these intersections with the addition of traffic from the Project. The intersec-

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		tion of Santa Fe Street with SR 108 was not included as the assessment as the project would not add traffic to movements where off-tracking requirements are not met. As noted in the response to comment SA3-4, a significant and unavoidable impact was identified for these intersections for truck movements.
State Clearinghouse		
SA4-1	The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on May 10, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this content package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly. Please note that Section 211 04(c) of the California Public Resources Code states that: "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation." These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.	This comment acknowledges that the Draft EIR was circulated to various State agencies for comment.
Modesto Irrigation District		
RA1-1	Thank you for allowing the District to comment on this referral. Following are the recommendations from our Electrical, Irrigation and	This comment acknowledges that the Modesto Irrigation District has reviewed the Draft EIR and introduces ensuing comments, but the comments does not state a specific concern or

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Comment Number	Comment	Response
	Domestic Water Divisions:	question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA1-2	Irrigation - Section 4.17 C of the draft EIR discusses increasing storm water discharge flows into the Oakdale Irrigation District (OID) Riverbank Lateral. The Riverbank Lateral discharges into the Modesto Irrigation District (MID) Main Canal and is subject to a 1942 agreement limiting "irrigation spill, drainage pump discharges and storm and surface water discharges" to maximum total amounts. Any increased discharge from the Riverbank Army Ammunition Plant redevelopment project to OID's Riverbank Lateral would be subject to the constraints imposed in the 1942 agreement.	The City acknowledges that any increased storm water discharge into the OID lateral is subject to the 1942 agreement. In order to address a potentially significant impact resulting from increased storm water originating on the RAAP site, <u>any new development occurring within the RAAP site would be required to comply with the RAAP Specific Plan as well as the Stormwater Plan prepared for the site.</u>
RA1-3	Domestic Water - No comments at this time.	This comments does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA1-4	Electrical - The Electric Division has no objections at this time.	This comments does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA1-5	MID currently has an existing electric facility adjacent to the subject area.	This comments does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA1-6	If MID electric service is desired into the area, the customers should contact the District's Electric Engineering Department to determine the availability of electric service and coordinate service requirements to the proposed project.	The City acknowledges MID's recommendation to potential electrical customers, however this comments does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA1-7	The Modesto Irrigation District reserves its future rights to utilize its property, including its canal and electrical easements and rights-of-way, in a manner it deems necessary for the installation and maintenance of electric, irrigation, agricultural and urban drainage, domestic water and telecommunication facilities. These needs, which have not yet been determined, may consist of poles, crossarms, wires, cables, braces, insulators, transformers, service lines, open channels, pipelines, control structures and any necessary appurtenances, as may, in District's opinion, be necessary or desirable.	The City acknowledges MID's reservation of future rights to utilize property owned by MID, however this comments does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
Oakdale Irrigation District		
RA2-1	The Oakdale Irrigation District (OID) has reviewed the Riverbank Local Redevelopment Authority (RLRA) Riverbank Army Ammunition Plant (RAAP) Environmental Impact Report (EIR) and has the following comments and recommendations regarding the RAAP Specific Plan (project or EIR).	This comment acknowledges that the Oakdale Irrigation District has reviewed the Draft EIR and introduces ensuing comments, but does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.

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RA2-2	A letter was sent on March 8, 2011 in response to the February 2, 2011 Notice of Preparation of a Draft EIR in which a request was made that the Riverbank Lateral be fenced. Both the Land Use Concept Figure 3-4) and the Roadway Plan (figure 3-5) of the EIR do not provide alternatives for the Riverbank Lateral as show on Figure 3-7, Potential OID Realignment. OID restates the request to fence the Riverbank Lateral.	Page 3-14 of the Draft EIR states that the Specific Plan calls for the City to work with the OID to explore the relocation of the OID canal (Riverbank Lateral) in order to create more viable development parcels on the RAAP site. It is also stated that, while the Specific Plan does not commit the City to implementation of this concept, it does set aside land where the Canal could be relocated in the future. As individual development applications are submitted under the RAAP Specific Plan, the relocation of the OID canal will be discussed, however, the City does not anticipate the installation of fencing adjacent to the Canal location.
RA2-3	The project calls for the City of Riverbank to work with OID to explore relocating the Riverbank Lateral. Relocation is possible per OID Policy although no approval has occurred to date. Pre-consultation with OID is strongly recommended during the planning phase of any specific project.	This comment is correct, and as stated in response to Comment RA2-2, as individual development applications are submitted under the RAAP Specific Plan, the relocation of the OID canal will be discussed. The City acknowledges that pre-construction consultation with the OID is strongly recommended during the planning phases of in individual projects.
RA2-4	The OID Langstroth Drain is located on the southern edge of parcel 062-031-005. The EIR recommends that the western and southern project frontages along Claribel and Claus Road be widened to their ultimate widths with appropriate turn pockets, bicycle facilities and pedestrian amenities. Expansion of Claribel Road may require the facility be piped. If located underneath Claribel Road, it will become the maintenance responsibility of the City of Riverbank or Stanislaus County.	It is acknowledged that potential expansion of Claribel Road may require the OID Langstroth Drain to be piped, and it will become the maintenance responsibility of the City of Riverbank. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA2-5	The EIR also discusses 2 existing outlets from the from the north storm drain reservoir that discharge into the Riverbank Lateral and a smaller pump that conveys storm water from the lift station directly to the OID Riverbank Lateral. You may wish to revise the EIR as these connections were plugged and removed on February 28, 2013 and the capability of RAAP to discharge storm water into the Riverbank Lateral no longer exists.	Text on page 4.17-28 has been amended as follows: In general, under existing conditions, stormwater runoff is collected in numerous inlets located around the site that connect to a main storm drain line. The main storm drain line carries flows towards the north, opposite the surface grade. At Gate 10, flow is directed through a diversion structure. A valve located at the discharge of the diversion structure remains open allowing stormwater runoff to travel through the diversion structure and down a 36-inch pipe towards a lift station, located adjacent to the north stormwater reservoir. Pumps 1 and 2 of the lift station convey flow into the north reservoir. This reservoir is designed as a detention basin that allows for temporary stormwater runoff to facilitate settling of suspended sediment. Two outlets, with approximately one foot of elevation difference, are provided in the reservoir to discharge water into the Oakdale Irrigation District (OID) 30 inch diameter line that runs parallel to the north side of the reservoir. Between rain events, some water remains in the reservoir, below the outlets, and either evaporates, infiltrates into the ground, or is used by the vegetation that grows in the basin. The lift station located near the reservoir has a third smaller pump that conveys stormwater from the lift station directly to the OID pipe during periods of excessive rain.

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San Francisco Public Utilities Commission		
RA3-1	The San Francisco Public Utilities Commission offers the following comments on the Riverbank Army Ammunition Depot Draft EIR (SCH #2011022015):	This comment acknowledges that the San Francisco Public Utilities Commission has reviewed the EIR and introduces ensuing comments, but does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA3-2	1. The City and County of San Francisco (CCSF), San Francisco Public Utilities Commission (SFPUC) owns a 100-foot-wide right of way (ROW) for the Hetch Hetchy Aqueduct and the San Joaquin Transmission Line, which bisects the Specific Plan area. The Draft EIR acknowledges this ROW and the Specific Plan does not propose development in this area. However, Figure 3-8 in the DEIR identifies the SFPUC ROW as "Buffer/ Greenway/ Open Space". Please note that any use or development of the ROW, such as for landscaped open space, a pedestrian or bicycle trail, parking, emergency access routes or road crossings, must be reviewed and approved by the SFPUC. Further, CCSF owns the ROW in fee, and SFPUC charges fair market value for its use. In addition, SFPUC places restrictions on use of the ROW in order to protect utility infrastructure and insure that it is accessible for maintenance. SFPUC ROW use requirements are attached (Attachment 1).	As stated on page 3- 14, the Specific Plan does not propose any changes to the Hetch Hetchy Aqueduct, and new development will be outside of the 100-foot-wide parcel. It is acknowledged that any use or development within the Hetch Hetchy Aqueduct, including landscaped open space, pedestrian or bicycle trails, parking, emergency access routes or road crossings, must be reviewed and approved by the SFPUC.
RA3-3	2. In addition, please note that the land use rights associated with the Army's entry road, which crosses the SFPUC ROW, should be investigated to determine whether this use is covered by an easement. If not, use of this crossing would require review by the SFPUC and, if approved, would be subject to a revocable license from the SFPUC.	It is believed that this comment is referring to the existing rail line that traverses the SFPUC ROW within the RAAP site. The RAAP Specific Plan does not propose construction of any new crossings over the SFPUC property. The existing rail line is within an existing easement, and will remain as a component of the Specific Plan.
RA3-4	3. In 2011 URS, a consultant to SFPUC, reviewed existing environmental documents that addressed the RAAP Superfund site to evaluate any potential impacts to SFPUC's right of way property from activities at the RAAP. As detailed in the attached letter report, "Request for Additional Characterization of the San Francisco Hetch Hetchy Water and Power Division Property Associated with the Riverbank Army Ammunition Plant Superfund Site", which we submit as an element of this comment (Attachment 2), soils in the SFPUC right of way may be contaminated due to the presence of a Transite (asbestos cement) pipe, a past leak in the Transite waste sewer line, leaks in a stormwater line, and overflows from stormwater retention ponds adjacent to the right of way. Additional sampling of soils in the right of way was recommended, and it also was recommended that the Transite pipeline be	This comment provides a summary of the URS report that is attached to the comment letter and responded to in the responses to Comments RA3-12 through RA3-23. Please see the response to RA3-14 with regard to the mitigation of potential impacts related to hazardous materials.

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	removed rather than abandoned in place. SFPUC is not aware if these actions were ever carried out. If contaminated soils or other hazardous materials are present, this could pose risks to utility workers in the right of way.	
RA3-5	<u>San Francisco Public Utilities Commission Pipeline Right of Way Requirements</u>	This comment is the title for the list of requirements that follows.
RA3-6	<i>Utilities</i> - o No utility may be installed along, rather than across, the Right of Way. Only perpendicular crossings are permitted. - o No aerial utility crossing over the Right of Way is permitted except in city streets.	This comment provides the requirements for the installation of utilities in SFPUC pipeline rights of way. The RAAP Specific Plan does not propose the installation of utilities in the SFPUC right of way, and this comment does not question the sufficiency of the analysis or mitigation measures contained in the EIR.
RA3-7	<i>Land Use, Structures, and Accessibility</i> - o Structures on the Right of Way are strictly prohibited. No one shall construct or place any temporary or permanent structure or improvement in, on, under or about the Right of Way. For the SFPUC's purposes, asphalt, concrete and cementitious concrete driveways, sidewalks and parking areas, and fences are deemed "improvements," and are subject to SFPUC review and approval. - o No use is permitted that would restrict access to Right of Way at any time by SFPUC staff, construction equipment or vehicles. This means that structures on adjacent property must be setback at least 10 feet from the Right of Way. - o An adjacent property owner or tenant may not use the Right of Way fulfill its open space, setback, emergency access or other development requirements. - o No use that would cause ponding on the Right of Way is permitted. - o Any use that cannot effectively be displaced in a timely manner upon the SFPUC's request is disfavored. - o Any use that may contaminate with hazardous materials the soils, water or natural habitat of SFPUC property is prohibited. - o Any use where the Right of Way would provide an adjacent owner, tenant or licensee with its sole emergency access to the tenant or licensee's property is prohibited. - o Any use that would increase the SFPUC's potential liability or diminish its security is disfavored. - o Any use inconsistent with any existing or future policies adopted by the SFPUC, as they may be amended or modified from time to time, is disfavored.	This comment provides the requirements for land use, structures, and accessibility in SFPUC pipeline rights of way. This comments does not question the sufficiency of the analysis or mitigation measures contained in the EIR.

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RA3-8	<i>Restoration</i> The SFPUC is not responsible for restoring or replacing any vegetation or improvement on the Right of Way damaged or demolished so that the SFPUC may access, maintain or repair its pipelines. The SFPUC will restore the ground with soil compacted to SFPUC standards. The vegetation or improvement owner is responsible any additional work or the restoration.	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA3-9	<i>Vegetation</i> No trees or large shrubs may be planted within the Right of Way. Other vegetation may only be installed with the SFPUC's prior written consent. For a list of plants that may be permitted in the Right of Way, please refer to SFPUC Integrated Vegetation Management Policy Section 13.005 at http://www.sfwater.org/index.aspx?page=431 . The tenant or licensee is responsible for vegetation maintenance and removal.	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA3-10	<i>Right of Way Loading Restrictions</i> The maximum loading on the Right of Way should not exceed traffic loading HS-20 on the paved surfaces when the pipeline has a minimum four-foot cover. Overburdened or additional live or dead loads such as load-bearing footings, pole foundations, or large boulders within the influence line of the pipe trench is prohibited.	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA3-11	<i>Right of Way Cover Requirements</i> To prevent damage to the PUC's underground pipelines, an adjacent owner or tenant's use of vehicles and equipment within twenty feet (20') of each side of the centerline of the PUC's pipelines (measured on the surface) are subject to the restrictions stated in Exhibit B.	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA3-12	URS was tasked with reviewing existing environmental documents to assess potential impacts to the San Francisco Public Utilities Commission (SFPUC) Hetch Hetchy Water and Power Division (HHWP) property, located on the Riverbank Army Ammunition Plant (RBAAP) Superfund Site. The HHWP utility currently bisects the northern portion the RBAAP site. In 1952, the City and County of San Francisco issued a permit to the U.S. Army to occupy and use the HHWP property crossing the RBAAP property.	This comment provides an introduction to a characterization of the SFPUC property located on the RAAP site. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA3-13	To evaluate any potential impacts to the HHWP property from activities at the RBAAP site, URS reviewed the following documents provided by the SFPUC: • Site Investigation Report Riverbank Army Ammunition Plant	This comment lists the documents that were reviewed in order to evaluate any potential impacts to the SFPUC-owned property. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.

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	Riverbank, California, March 2008 (CH2MHill, 2008); • Environmental Condition of Property Phase I Report Riverbank Army Ammunition Plant, Riverbank, California, November 17, 2006 (CH2MHILL, 2006); and • Second Five Year Review Report Final Riverbank Army Ammunition Plant, City of Riverbank Stanislaus County California, September 2006 (U.S. Army, 2006). Based on a review of these documents, three areas of concern were identified associated with the HHWP property where it bisects the RBAAP property: 1. Site RBAAP-04/SWMU-12: A process waste sewer line made of Transite (asbestos cement) material crosses the HHWP property. Historically, there was a break in this line that released untreated process wastewater onto the HHWP property. Additionally, the Transite pipe material itself is hazardous if disturbed. 2. Site RBAAP-09/SWMU 20: A stormwater line servicing the RBAAP stormwater system crosses HHWP property to connect to the stormwater retention ponds. Leaks in the stormwater line where it crosses HHWP property may have resulted in contamination of soil on HHWP property. 3. Site RBAAP-09/SWMU 20: The stormwater retention ponds located directly adjacent to the HHWP property have historically overflowed. These overflows may have resulted in contamination of soil on the HHWP property.	
RA3-14	<u>Site RBAAP-04: Process Waste Sewer Line</u> In 1972, a break occurred in the effluent sewer line that transported wastewater from the wastewater treatment plant to the facility evaporation percolation ponds, located off site adjacent to the Stanislaus River. The break was at the intersection of the HHWP property. According to available information, this break was not discovered for 7 days, and an estimated 1 million gallons per day of wastewater were being discharged through the pipe at this time. An unknown volume of wastewater was released, sufficient to cause pooling at the ground surface (CH2MHILL 2006). Additionally, SFPUC understands that the sewer line was video surveyed, and that additional breaks in the line were observed as reported in the Nor Cal Pipeline Services Sewer Report, Project Name: Riverbank Army Ammunition Plant October 2009 (Nor Cal, 2009).	This comment suggests the completion of additional studies to evaluate whether or not contaminants of concern associated with the RAAP site are located within SFPUC-owned land. As discussed in Chapter 4.9, Hazards and Hazardous Materials, on page 4.9-14, as future development applications for project within the RAAP site are received, the City will require that any hazardous materials issues be fully disclosed, analyzed, and mitigated to ensure against any risk relative to any nearby planned or existing land uses and their users. The recommended remediation activities identified in this comment and further discussed in Comments RA3-15 through RA3-23 would be addressed on a project-by-project basis, in site-specific hazardous waste analyses, and through remedial action plans, where necessary.

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	According to the 2006 Phase I Report, an investigation was completed in the vicinity of the pipe leak during the Confirmatory Phase of the Contamination Survey. This investigation included collection of four soil sample cores in the vicinity of the pipe break, and one background sample. Samples were only analyzed for California Title 22 Metals, and results indicated only chromium, copper, and fluoride were present at concentrations close to or greater than three times background (CH2MHILL 2006). Therefore, the Feasibility Study recommended no further action in this area. Because multiple contaminants of concern (COCs) associated with the RBAAP facility could have been present in the water in the effluent sewer line, it would be appropriate to collect samples for analysis beyond Title 22 Metals. Other contaminants associated with the site include: hexavalent chromium, volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), cyanide, and polychlorinated biphenyls (PCBs). VOCs would be less likely to persist in shallow soils, because the spill occurred in the 1970s. However, PCBs, TPH, hexavalent chromium, and cyanide could have been present in wastewater, and would be reasonably expected to be present in shallow soil in the vicinity of the break. Some of these COCs were sampled during the Remedial Investigation (RI) at other sewer-related sites at the RBAAP, but not at the sewer line break location. URS recommends that additional samples be collected at the location of any breaks in the line, and sampled for these COCs. A review of the line video survey should be conducted to identify any breaks on or near the HHWP property. If new breaks on or adjacent to the HHWP property are observed in the video surveys, then additional sampling should be conducted in these areas as well. Additionally, because the Transite pipe represents a hazard to future water utility workers if left in place, the pipe should be removed when it is no longer in use, rather than abandoned in place.	
RA3-15	<u>Site RBAAP-09/SWMU 20: Storm Discharge Lines</u> Although no specific release from a break in the stormwater discharge lines has been documented in the reports reviewed, the discharge line crosses the HHWP to connect to the stormwater retention ponds. Based on the Nor Cal Pipeline Services Sewer Report, SFPUC understands that this line was video surveyed and that breaks may have been	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR. Please refer to the response to Comment RA3-14 with regard to the mitigation of potential impacts related to hazardous materials.

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	observed (Nor Cal, 2009). A review of the line video survey should be conducted to identify any breaks on the HHWP property. If any breaks in this line are present on or adjacent to the HHWP property, soil samples should be collected at and below the depth of the line and analyzed for Title 22 Metals, PCBs, TPH, hexavalent chromium, and cyanide. These contaminants are all COCs at the site, and could be present in any stormwater runoff transferred through this line.	
RA3-16	<u>Site RBAAP-09/SWMU 20: Stormwater Retention Ponds</u> The Northwest Storm Reservoir is located adjacent to the Hetch Hetchy aqueduct on the HHWP property. Historically, this reservoir has overflowed in heavy rains. In 1974, the Army Environmental Hygiene Agency reported a sample collected from water in the Storm Reservoir had results showing elevated concentrations of selected heavy metals (CH2MHILL 2006). During Phase I of the RI at the site, two sediment samples were collected from the reservoir and analyzed for total and hexavalent chromium, total and free cyanide, 1,1-dichloroethylene, and the organic persistent and bioaccumulative toxic substances listed in California Title 22 California Code of Regulations. The analytical results documented total chromium at levels greater than three times background. Although it was determined that the reservoir was not a significant source of groundwater contamination, the potential shallow soil contamination was not considered (CH2MHILL 2006). Because elevated concentrations of heavy metals have been detected in both water and sediment present in the stormwater reservoir, contaminants could potentially have migrated to the HHWP soils during an overflow. Although potential soil contamination from stormwater overflow is not likely to be a source of groundwater contamination, it would result in contaminated soil on the HHWP property. Therefore, samples should be collected on the HHWP property in the vicinity of the stormwater reservoir to confirm that contamination is not present. Sample analysis should include Title 22 Metals, hexavalent chromium, PCBs, and cyanide.	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR. Please refer to the response to Comment RA3-14 with regard to the mitigation of potential impacts related to hazardous materials.
RA3-17	<u>Regulatory and Guidance Information</u> The RBAAP site investigation was performed under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Public Law (PL) 96-510 as amended by Superfund Amendment and	This comment provides an introduction to Comments RA3-18 through RA3-22. This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.

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	Reauthorization Act (SARA) (PL 99-499) and the Community Environmental Response Facilitation Act (CERFA) PL 102-42. Title 40 environmental regulations and U.S. EPA guidance documents guided the environmental investigation, remedy selection, and Record of Decision (ROD). In addition, the 2006 Phase I ESA was a component of the Environmental Baseline Survey (EBS) performed under Department of Defense policy to support a future Finding of Suitability of Transfer (FOST). It appears that the data gaps identified in this letter are covered by the following regulations and guidance:	
RA3-18	1) CERCLA Site Investigation: The site investigation generally followed the 1988 U.S. EPA Remedial Investigation I Feasibility Study (RI/FS) Guidance (EPA/540/G-89/004); however, it appears that the selection of COCs for sites RBAAP-04 and RBAAP-09 did not include all the known wastes stored and released in those areas as required in the guidance. The liquid wastes released in these areas should have been investigated for all applicable COCs including hexavalent chromium, VOCs, TPH, cyanide, and PCBs. The incomplete COC selection created a data gap that propagated into the risk assessment and remedy selection stages of the CERCLA process.	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR. Please refer to the response to Comment RA3-14 with regard to the mitigation of potential impacts related to hazardous materials.
RA3-19	2) Remedy Selection: The remedy selection and ROD for this site generally followed the 1999 U.S. EPA Guide to Preparing Superfund Proposed Plans, Records Of Decision, And Other Remedy Selection Decision Documents Guidance (EPA 540-R-98-031); however, it appears that the data gap from the missing COCs for sites RBAAP-04 and RBAAP-09 carried through from the site investigation phase to the risk assessment and remedy selection phase. The evaluation of the nine criteria could not take into account the potential COCs at sites RBAAP-04 and RBAAP-09 because no information was available regarding the presence of all the potential COCs. Following U.S. EPA guidance any minor changes to the remedy required by new information could be documented in the Administrative Record and/or a future ROD Amendment.	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR. Please refer to the response to Comment RA3-14 with regard to the mitigation of potential impacts related to hazardous materials.
RA3-20	3) Five-Year Review: The 2006 Second Five Year Review Report Riverbank Army Ammunition Plant prepared by AHTNA generally followed the U.S. EPA 2001 Comprehensive Five-Year Review Guidance (EPA 540-R-01-007); however, the COC data gaps for sites RBAAP-04 and RBAAP-09 were not identified in the review. The U.S. EPA concurred with the U.S. Army that the remedy was protective of human health and the environment; however, the Five-Year Review	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR. Please refer to the response to Comment RA3-14 with regard to the mitigation of potential impacts related to hazardous materials.

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	discussed future implementation of Institutional Controls at the site and continuing RCRA closure for the Industrial Wastewater Collection System. It appears that the COC data gaps for sites RBAAP-04 and RBAAP-09, and the potential presence of utility worker risk from COCs and from the buried Transite pipe should be addressed in the Institutional Controls and RCRA closure that are currently in progress. If additional data are collected as requested in this letter the results could be appended to the Administrative Record and/or included in a future ROD amendment depending on whether the findings are significant. In addition, the management in place of the buried Transite pipe addressed through Institutional Controls or RCRA closure should be documented in the administrative record and/or in a future ROD amendment, as required.	
RA3-21	4) Property Transfer: The potential presence of COCs that were not sampled for at the three locations identified above and the presence of the Transite pipe are covered under CERCLA 120(h) (as amended) which requires that the government certify that "all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken before the date of such transfer."	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR. Please refer to the response to Comment RA3-14 with regard to the mitigation of potential impacts related to hazardous materials.
RA3-22	5) Environmental Baseline Survey: The general requirement in CERCLA 120(h) is defined in more detail in DOD policy, in 40 CFR 373, and in ASTM Method D6008-96(2005) "Standard Practice for Conducting Environmental Baseline Surveys." The 2006 Phase I ESA prepared by CH2M Hill generally followed ASTM D6008-96 (2005); however, although this standard explicitly calls for a detailed review of records associated with spills (Section 7.3.1) and contamination from runoff (7.3.19) the COC data gaps for sites RBAAP-04 and RBAAP-09 were not identified. Under the ASTM D6008-96 (2005) standard "if current records are incomplete regarding the nature and extent of contaminant sources, the user or environmental professional will note the strategy for completing relevant records." Since the COC data gaps in RBAAP-04 and RBAAP-09 were not identified or addressed it appears that the 2006 Phase I ESA overlooked the potential COCs in these areas.	This comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR. Please refer to the response to Comment RA3-14 with regard to the mitigation of potential impacts related to hazardous materials.
RA3-23	<u>Recommendations</u> In summary, URS recommends that additional sampling be conducted in the three areas of concern described above to determine if soil on the HHWP property has been impacted. Additionally, URS recom-	This comment provides recommendations with respect to remediating the RAAP site. Please refer to the response to Comment RA3-14 with regard to the mitigation of potential impacts related to hazardous materials.

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	mends that the video survey of the wastewater and stormwater lines be reviewed to target sampling around any breaks on-or in the vicinity of- the HHWP property. Samples should be analyzed for COCs, including Title 22 Metals, hexavalent chromium, PCBs, and cyanide. Lastly, the disposition of the Transite wastewater line after it is no longer in use should be addressed to mitigate risks to future utility workers. The responsibility for addressing the risks from the pipe should be with the U.S. Army, rather than the HHWP.	
Stanislaus Consolidated Fire Protection District		
RA4-1	Stanislaus Consolidated Fire Protection District (SCFPD} has reviewed the "Draft Environmental Impact Report (EIR} Riverbank Local Redevelopment Authority Specific Plan for Riverbank Army Ammunition Plant" and wishes to have the following comments included:	This comment acknowledges that the Stainslaus Consolidated Fire Protection District has reviewed the EIR and introduces ensuing comments, but does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA4-2	1. The formation of Community Services Districts and an improvement to SCFPD Development Fees needed to fund the anticipated staffing and capital assets is referenced in the Draft EIR but should be included as a mitigation measure with identifiable benchmarks.	The EIR includes Mitigation Measure PUB-1 which requires the City to negotiate with Stanislaus Consolidated Fire Protection District to establish a financing structure that requires development fees from future development resulting from implementation of the RAAP Specific Plan to contribute to the construction of new fire protection facilities. The benchmarks requested in this comment will be agreed upon prior to construction of future development under the RAAP Specific Plan.
RA4-3	2. For ALL mitigation measures, benchmarks shall be identified prior to the adoption of the EIR, which will trigger the implementation of said measures.	This comment requests that benchmarks be included in mitigation measures prior to the certification of the EIR. With respect to benchmarks and safety-related mitigation measures, please see response to Comment RA4-2.
Stanislaus County		
RA5-1	The Stanislaus County Environmental Review Committee (ERC) has reviewed the subject project and has determined that it may have a significant effect on the environment. The following comments/conditions are submitted by the Department of Public Works, Senior Land Development Coordinator:	This comment acknowledges that the Stanislaus County Environmental Review Committee has reviewed the EIR and introduces ensuing comments, but this comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR.
RA5-2	• The County's Public Works Transit Division currently operates transit service in the City of Riverbank and plans to implement Dial-A-Ride (DAR) service in the City of Riverbank beginning August 5, 2013. As a result of the service improvements planned for 2013, the service boundary for the DAR service in the City has been extended from Claus Road to Eleanor Avenue and to Montgomery Rd. The Transit	The Specific Plan identifies potential transit stop locations along Claus and Claribel Road. The final location transit stops along the Project frontage will be coordinated with the Transit Division when final design plans are prepared.

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	Division is recommending that any future and potential transit stops to be located along both Claus and Claribel Roads should be coordinated with the Transit Division to ensure it may provide input on the location of these amenities.	
RA5-3	Mitigation measures state that each development shall pay its fair share for both the Claribel at Coffee and Claribel at Roselle intersections for left turn pockets. Developments may require direct mitigation prior to any future widening project, therefore, each development shall be responsible for direct mitigation including, but not limited to, the construction of right turn lanes, additional through lanes, and increased corner radiuses for larger vehicles. These mitigations and fair share contributions should not be limited to the intersections of Claribel at Coffee and Claribel at Roselle intersections.	The intersections of Coffee Road and Roselle Avenue at Claribel Road were identified in the Draft EIR as operating at a deficient level of service in the existing condition, prior to addition of traffic from the Project (LOS F during both peak hours). The addition of traffic from the Project would worsen LOS F conditions at both intersections during the morning and evening peak hours. The recommended mitigation measure is to signalize the Coffee Road and Roselle Avenue at Claribel Road intersections and construct left-turn pocket (Mitigation Measures TRANS-1 and TRANS-2). These improvements are included in the StanCOG RTP in conjunction with other improvements, further described below. Stanislaus County Plans to start construction on the widening on Claribel Road between McHenry Avenue and Oakdale Road to provide two travel lanes in each direction and improvements at the Claribel Road/Coffee Road intersection, including signalization and turn pockets. The planned improvements would result in acceptable operations of the intersection with the addition of Project traffic. Construction is scheduled for 2014. Improvements at the Claribel Road/Roselle Avenue intersection, including signalization, are scheduled for construction in 2015/2016. The Project would be required to pay local and regional fees that would contribute to construction of planned improvements along the corridor.
RA5-4	The EIR should not consider the North County Corridor in its base-line condition as a route has not yet been adopted. Upon adoption, the Specific Plan should be revised with the updated traffic model.	The North County Corridor (NCC) alignment considered in the Draft EIR is consistent with the alignment identified in the State Route 108 East Route Adoption project as of the time this analysis was conducted. The Draft EIR does recognize that the ultimate alignment of the NCC is still under evaluation and a preferred route has not yet been adopted. One alignment currently under consideration would construct the NCC along Claribel Avenue, which could have Project site access and circulation implications from Claus and Claribel Roads, as it would eliminate the potential for access to be provided from Claribel Road and would restrict the number and location of access points from Claus Road. Once the preferred alignment is selected, the Specific Plan and associated technical documents may need to be modified to reflect site access and circulation changes necessary to accommodate the roadway construction.
RA5-5	Road widening of Claribel Road and Claus Road are mentioned in the summary but not considered in the mitigation measures. Please include this as part of the mitigation measures.	As described in Section 4.16 of the Draft EIR, the Project contributes traffic to the Claribel Road corridor. Two intersection impacts were identified in the Existing Plus Project condition as Project traffic would worsen already deficient conditions at two intersections. Mitigation measures were identified (see response to RA5-3). The Project would also add traffic to the Claus Road corridor. No Project impacts were identified in the Existing Plus Project Scenario. The StanCOG RTP identifies widening of Claribel and Claus Road as Tier I improvements that are expected to be in place by 2025 and there are no Project specific mitigation measures other than to pay applicable fees.

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RA5-6	• Measure Trans-3 states "Future developers within the RAAP area shall contribute their fair share towards improvements at the intersections identified above." Table 4.16-9 shows Claribel at Coffee and Claribel at Roselle intersections while the intent of Trans-3 is for the intersections of Atchison Street (State Route 108) at 1st Street, State Route 108 at Claus Road and State Route 108 at Patterson Road. This should be clearly identified in the mitigation measures.	Mitigation Measure TRANS-3 has been amended as follows: <u>Mitigation Measure TRANS-3:</u> Future developers within the RAAP area shall contribute their fair share towards improvements at the intersections identified above, though the payment of local and regional traffic fees, that improve turning radii for large trucks to provide adequate turning radii in conformance with STAA requirements at intersections on State Route 108, specifically at the intersections of Atchison Street (State Route 108)/1st Street, State Route 108/Claus Road and State Route 108/Patterson Road, though the payment of local and regional traffic fees. No other improvements have been identified for <u>are needed to mitigate project impacts at</u> these intersections.
RA5-7	• In addition, Measure TRANS-5 and Measure TRANS-1 are conflicting measures for the intersection at Claribel and Coffee. Please provide clarifying information to Angie Halverson, Senior Land Development Coordinator with the Department of Public Works.	TRANS-1 identifies improvements that would need to be constructed in the near-term at the Claribel Road/Coffee Road intersection to provide acceptable operations, including signalization and provision of left-turn pockets on all approaches. TRANS-5 identifies long-term improvements, beyond those already planned for, that would need to be constructed at this intersection to accommodate planned development in the area over the next 20 to 30 years. The cumulative impact at this intersection was identified as significant and unavoidable due to the uncertainty in the timing of constructing the long-term improvements.
San Joaquin Valley Air Pollution Control District		
RA6-1	The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Specific Plan and Draft Environmental Impact Report (EIR) for the Riverbank Army Ammunition Plant (RAAP) project. The project includes the development of a 146-acre project site with up to 119,058 sf new commercial/retail space, 1,411,542 sf of industrial space (673,625 sf existing, 737,917 sf new), and 116,637 sf of new office/research and development space. As discussed in the EIR, the Specific Plan is a program level project and should include a discussion of policies, which when implemented, will reduce or mitigate impacts on air quality at the individual project level. To aid the City of Riverbank in addressing project specific issues at the program level and review the feasibility of all potential mitigation measures, the District offers the following comments and recommendations.	This comment acknowledges that the San Joaquin Valley Air Pollution Control District has reviewed the EIR and introduces ensuing comments, but this comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR. No response is required.
RA6-2	<u>Criteria Pollutant Emissions</u> 1. Mitigation Measures AQ-1a and AQ-2 have been incorporated into the project to reduce potential impacts from construction and operational activities associated with the buildout of the Specific Plan. The discussions in the EIR and the mitigation measures indicate that all	Mitigation Measure AQ-1a has been amended as follows: <u>Mitigation Measure AQ-1a:</u> Each individual project component of the Specific Plan, <u>including those projects allowed by right</u>, shall be analyzed for significant construction period air quality impacts. For each project-level analysis, a construction emissions estimate will be made <u>by SJVAPCD</u> using the latest SJVAPCD accepted methodology and will be compared

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	future projects within the RAAP will require additional emissions analysis and will be mitigated in accordance with District Rule 9510 (Indirect Source Review). However, the mitigation measures as written are unclear as to whether they are meant to: (1) ensure that future development project will be compliant with CEQA requirements, (2) ensure that all future development projects would comply with District Rule 9510 (Indirect Source Review) requirements, or (3) ensure compliance with both CEQA and District Rule 9510. The District recommends that discussions in the EIR and Mitigation Measure AQ-1a and AQ-2 be amended, or new measures added, to clarify the intent of each measure and to identify how the measures will be made enforceable by the City of Riverbank. The District offers the following recommendations:	to accepted thresholds of significance. Means of mitigating construction period impacts to a less-than-significant level include, but are not limited to, Mitigation Measures AQ-1a through AQ-1d. <u>Since approval of the RAAP Specific Plan may constitute the final discretionary approval by the City of Riverbank, each individual project component, including those projects allowed by right, shall be required to demonstrate to the SJVAPCD compliance with construction period requirements of Rule 9510 prior to issuance of the first building and/or grading permits as a condition of project approval. The applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.</u> Mitigation Measure AQ-2 has been amended as follows: <u>Mitigation Measure AQ-2: Each individual project component of the Specific Plan, including those projects allowed by right, shall be analyzed for significant construction period air quality impacts. For each project-level analysis, an operational emissions estimate will be made by SJVAPCD using the latest SJVAPCD accepted methodology and will be compared to accepted thresholds of significance. Means of mitigating operational period impacts to a less-than-significant level include, but are not limited to, improving transportation and transit design (e.g., improved bikeways, transit infrastructure, and pedestrian enhancements); contributing a project's fair share to the Air Quality Mitigation Fee Fund; and contributing a project's fair share towards Transportation Control Measures implementation programs. For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.</u> <u>Since approval of the RAAP Specific Plan may constitute the final discretionary approval by the City of Riverbank, each individual project component, including those projects allowed by right, shall be required to demonstrate to the SJVAPCD compliance with operational period requirements of Rule 9510 prior to issuance of the first building and/or grading permits as a condition of project approval. For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.</u> <u>Each individual project, including those projects allowed by right, that introduce significant sources of air pollutant emissions or stationary sources of TACs shall complete separate ambient air quality analysis and health risks assessments to ensure that violations of ambient air quality standards do not occur, including an analysis of cumulative emissions from the RAAP Specific Plan. For each individual project, the applicant shall document, to the City's reasonable satisfaction, its compliance with this mitigation measure.</u>

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RA6-3	1 a) If the intent of the mitigation measure is to ensure compliance with CEQA requirements: Table 5-1 of the Specific Plan identifies allowed uses within the various development districts within the RAAP plan area. Some of these uses appear to be allowed by right (ministerial approvals only), while others would require additional conditions or the issuance of a use permit (discretionary approvals). As CCR§ 15268 exempts ministerial projects from CEQA requirements, it is unclear whether the City will require additional analysis of construction and operational emissions for all projects within the RAAP plan area, or whether these requirement will be only for projects requiring additional conditions or use permits. It is also unclear whether the City will require project-level developments to mitigate impacts on air quality to less than significant. The District recommends that the discussions on construction and operational related impacts and Mitigation Measure AQ-1 a and AQ-2 be amended to clarify: which projects, if any, would be considered ministerial approvals and which would require additional review; whether projects must mitigate to less-than-significant; and the actions the City will take to enforce the required mitigation.	Please refer to response RA6-2 above.
RA6-4	1 b) If the intent of the mitigation measure is to ensure compliance with District Rule 9510: As previously discussed, Table 5-1 identifies allowed uses within the various development districts within the RAAP plan area, some of which appear to be allowed uses by right with no further CEQA analysis required. As such, approval of the RAAP Specific Plan may constitute the final discretionary approval by the City of Riverbank for some uses identified in Table 5-1. The District recommends that the mitigation measures be amended to include a requirement for all applicants within the RAAP plan area, including those projects allowed by right, to demonstrate to the City compliance with Rule 9510 prior to issuance of the first building and/or grading permits as a condition of project approval.	Please refer to response RA6-2 above.
RA6-5	1 c) If the intent of the mitigation measures are to ensure compliance with both CEQA and District Rule 9510 requirements: The District recommends that the measures be amended to include all District recommendations discussed above.	Please refer to response RA6-2 above.
RA6-6	For project emissions that would be significant and unavoidable, the District recommends the environmental document be revised to in-	The emissions from the RAAP Specific Plan are considered significant, because they are compared to the District's recommended significance thresholds that apply to projects. As a re-

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	clude a discussion of the feasibility of implementing a voluntary emission reduction agreement (VERA) to mitigate project specific impacts to less than significant levels. A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds for the District's Emission Reduction Incentive Program (ERIP). The funds are disbursed by ERIP in the form of grants for projects that achieve emission reductions. Thus, project specific impacts on air quality can be fully mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of old farm tractors. The District has been developing and implementing VERA contracts with project developers to mitigate project specific emissions since 2005. It is the District's experience that implementation of a VERA is a feasible mitigation measure, and effectively achieves the emission reductions required by a lead agency, by mitigating project related impacts on air quality to a net zero level by supplying real and contemporaneous emissions reductions. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the environmental document be amended to include an assessment of the feasibility of implementing a VERA. Additional information on implementing a VERA can be obtained by contacting District CEQA staff at (559) 230-6000.	sult, emissions from the plan are higher than those that would occur from any one project. Land use developments constructed as part of this project would be subject to the requirements of the District's Indirect Source Review Rule (ISR), SJVAPCD Rule 9510. As discussed on pages 4.3-11 of the Draft EIR, ISR would require substantial reductions of construction and operational period emissions from the land use activities. This is in addition to SJVAPCD requirements to control emissions from construction activities (Rule 8021 which enforces Regulation VIII described on page 4.3-12 of the Draft EIR), requirements to reduce worker commute emissions (Rule 9410, described on page 4.3-12 of the Draft EIR), SJVAPCD rules and regulations regarding new sources of air pollutants emissions (i.e., those that apply to SJVAPCD regulated sources), and CARB requirements that apply to construction equipment fleets, truck fleets and portable equipment. As a result, projects developed under the RAAP would be required to reduce emissions at a level probably greater than other similar projects in the State or perhaps the country. The large quantity of the emissions predicted in the Draft EIR is related to the type and size of the plan that would consist of numerous projects. The RAAP is actually an accumulation of projects that have been envisioned in the planning process conducted by the City (i.e., beginning with the General Plan Update). Smaller land use projects that, together, make up the entire project could be proposed. This would certainly result in much lower, and perhaps, insignificant emissions at a project-level analysis. However, the Draft EIR provided emissions estimates for the entire RAAP so that mitigation measures to reduce all environmental impacts can be consistently applied to fairly and effectively reduce significant impacts. The City would anticipate that SJVAPCD and CARB requirements would effectively reduce project air pollutant emissions to the extent feasible.
RA6-7	Health Risks 3. The DEIR includes a health risk assessment (HRA); however, it does not include an ambient air quality analysis (AAQA). The District offers the following comments and recommendations regarding the health risk discussion and analysis presented in the EIR:	Violations of ambient air quality standards were assessed by modeling the emissions from anticipated land uses constructed as part of the entire RAAP Specific Plan and comparing those to District emission thresholds. Emissions exceeding the thresholds were assumed to cause or contribute to violations of ambient air quality standards and were identified as significant. Because this is a Specific Plan, there is not enough detail to model on-site emissions from individual land uses that could be built out as part of the RAAP Specific Plan. Individu-

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		al projects and their emissions are required to be analyzed and compared to appropriate threshold per SJVAPCD significance thresholds.
RA6-8	3a) The discussion on exposure of sensitive receptors to substantial pollutant concentrations did not provide adequate information regarding the details of the HRA, nor were the details provided in the appendices to the EIR. Furthermore, the actual modeling files were not submitted to the District for review. As such, the District cannot make a determination as to the level of compliance with District policies and methodologies for performing HRA analyses.	The HRA was updated to include the health risks associated with onsite activity associated with the RAAP Specific Plan build-out in accordance with District modeling guidance. The Draft EIR now addresses health risks from both on-site and off-site sources. On-site sources would be diesel particulate matter emitted by truck travel at slow speeds within the Specific Plan. Stationary sources of contaminant emissions (e.g., diesel generators, fueling stations or dry cleaners) have not been identified. These types of sources could be included as part of projects proposed under the RAAP Specific Plan. These types of sources would be subject to State and District rules and regulations to minimize the emissions and associated health risks. Maximum excess lifetime cancer risk from on-site sources would be 4.3 per million. An analysis of off-site sources, although not recommended by the District, is included in the analysis. Section 4.3, Air Quality, of the Draft EIR has been revised to include both Clause Road traffic and emissions from the Specific Plan area, where the cumulative excess lifetime cancer risk would be 9.0 per million. Appendix B of the Draft EIR has been updated to include the additional modeling information. AERMOD modeling input and output files are available from the City.
RA6-9	3b) The only emissions modeled in the HRA were diesel particulate emission (DPM) increases on Claus Road. The District's methodology for completing an HRA for development projects is to predict risk only for emissions of toxics within the boundaries of the project site excluding emissions from public highways. Because Claus Road is a public highway outside of the project area boundaries, any increase in DPM from traffic generated by the Specific Plan would not be considered as producing a risk associated with the project.	Please refer to response RA6-8 above.
RA6-10	3c) Buildout of the Specific Plan will result in emissions generated by diesel truck traffic from retail and industrial land uses, stationary sources used in manufacturing, and from commercial uses such as restaurants, fuel dispensing operations, and dry cleaning. (It should be noted that most future dry cleaning operations will not emit perchloroethylene; however, some perchloroethylene replacements may be or may contain toxic air contaminants.) Stationary source emissions from individual developments within the Northern and Southern Caps may be subject to District permitting regulations, in which case the District would perform a Risk Management Review (RMR) and AAQA as appropriate. However, please note that the District's analyses include only those emissions that the District has statutory authority and will not include emissions generated by mobile sources. As such, more	Please refer to response RA6-8 above.

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	detailed analyses is needed to comply with CEQA requirements.	
RA6-11	3d) An AAQA should be performed to ensure that Federal and State ambient air quality standards for all criteria pollutants, including nitrogen dioxide, will not be violated. Concentration predictions need to be made for receptors surrounding the project that are in ambient air and not just residential or worker sites.	At the plan stage, there is not enough detail to model individual air pollutant sources. Emissions from the plan build-out, which could occur over many years was modeled and those levels were compared to emission thresholds contained in the District's Guide for Assessing and Mitigating Air Quality Impacts, adopted 1998 and revised in 2002 and 2004. Project details necessary to model ambient air quality concentrations from the project site are not available. Appropriate analysis of ambient air quality standards would require sufficient detail of anticipated on-site activities that cause emissions and the corresponding project-specific traffic activity and type. That project information is not available at this time. The outcome of such a study may find that project contributions to localized concentrations of ozone and particulate matter (i.e., PM10 and PM2.5), like carbon monoxide, would be less than significant. Given the lack of specific project information, the Draft EIR is not able to provide a reasonable prediction of localized nitrogen dioxide, PM10 and PM2.5 concentrations. Unlike the health risk assessment that addresses impacts at existing or locations of future sensitive receptors, these predictions are made at locations where any member of the public may be exposed. Therefore, these types of analysis require inputs that reasonably reflect on-site and off-site activities with respect to potential receptors so that relatively accurate predictions of air pollutant levels can be made. Because traffic is the primary source of project carbon monoxide concentrations and the Draft EIR provides a reasonable worst-case forecast of traffic, carbon monoxide concentrations were predicted at receptors along roadways. This cannot be conducted for receptors on site and adjacent to different land uses within the project site or adjacent to the project boundaries.
RA6-12	3e) The HRA presented in the EIR is not adequate to make a determination of the significance of potential health impacts resulting from implementation of the Specific Plan and should not be considered to be a programmatic HRA. The District recommends that a program level HRA and AAQA be prepared. The District strongly recommends that the City or its consultants contact the District for more information regarding the appropriate modeling approach. More information on HRAs can be obtained by: • Contacting District Technical Services staff by phone at 9559) 230-6000; • E-mailing inquiries to: hramodeler@valleyair.org; or • Visiting the District's website at: http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.	The Draft EIR HRA analyzes the primary source of contaminant emissions that would be emitted from the RAAP Specific Plan, which is traffic. The HRA was modified to include estimates of on-site traffic activity, including the use of plan-specific truck traffic forecasts. Because this analysis is conducted at the plan level, it does not include stationary sources of emissions that are not currently envisioned. As indicated under Response to Comment RA6-3 through RA6-5, project-level air quality analysis would be required as part of Mitigation Measure AQ-2.

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RA6-13	3f) Accurate quantification of health risks and operational emissions requires detailed site specific information, e.g. type of emission source, proximity of the source to sensitive receptors, and trip generation information. The required level of detail is typically not available until project specific approvals are being granted. As discussed above, it appears that allowed uses that do not require additional conditions or use permits may be exempt from additional CEQA analysis. However, some of these allowed uses may lead to increased health risks resulting from increases in diesel particulate matter and other emissions from mobile and stationary sources. Therefore, the District recommends the inclusion of a mitigation measure requiring a separate HRA and AAQA be completed for each new development project within the RAAP area, including those that would otherwise appear to be exempt from CEQA (such as those uses allowed by right as). These future analyses should include all mobile and stationary source emissions from each development. As new projects are constructed, the District recommends a cumulative analysis should be prepared to determine the total risk from the sources within the Specific Plan.	See Response to Comment RA6-3 through RA6-5, project-level air quality analysis would be required as part of Mitigation Measure AQ-2.
RA6-14	<u>District Rules and Regulations</u> 4. As discussed in the EIR, individual development projects within the scope of the RAAP Specific Plan would be subject to District Rule 9510 (Indirect Source Review) if upon full build-out of new developments, or the expansion of any existing building, the project would include or exceed any one of the following: • 50 dwelling units • 2,000 square feet of commercial space; • 25,000 square feet of light industrial space; • 100,000 square feet of heavy industrial space; • 20,000 square feet of medical office space; • 39,000 square feet of general office space; or • 9,000 square feet of educational space; or • 10,000 square feet of government space; or • 20,000 square feet of recreational space; or • 9,000 square feet of space not identified above; or It is important to note that all projects within the scope of the EIR exceeding the thresholds identified above will be subject to Rule 9510. As previously discussed, the adoption of the Specific Plan may constitute the final discretionary approval by the City for those allowed uses identified in Table 5-1. As such, the District strongly recommends the	SJVAPCD requests that demonstration of compliance with SJVAPCD Rule 9510, Indirect Source Review, be made a condition of Project approval. Mitigation Measure AQ-2 requires applicants for individual, site-specific developments under the Specific Plan to comply with SJVAPCD's Rule. Furthermore, mitigation measures identified in this EIR are included in the Mitigation Monitoring and Reporting Plan and are identified as Conditions of Approval.

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	City contact the District's ISR staff to discuss the application process and how to adequately complete an Air Impact Assessment (AIA) Application. District ISR staff is available to meet with the City and/or its consultants to further discuss the requirements of Rule 9510. More information on District Rule 9510 can be obtained by: • Calling the District's ISR staff at (559) 230-6000; • E-mailing inquiries to: ISR@valleyair.org; or • Visiting the District's website at: http://www.valleyair.org/ISRISRHome.htm.	
RA6-15	5. Individual development projects within the scope of the RAAP Specific Plan may also be subject to the following District rules and regulations: Regulation VIII, (Fugitive PM10 Prohibitions), Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 4002 (National Emission Standards for Hazardous Air Pollutants), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to individual projects or to obtain information about District permit requirements, project proponents are strongly encouraged to contact the District's Small Business Assistance Office at (209) 557-6446 prior to the start of construction activities. A complete list of current District rules can be found on the District's website at: www.valleyair.org/rules/1ruleslist.htm.	This comment has been noted. Future developments may be subject to SJVAPCD rules and regulations.
RA6-16	<u>General Comments</u> 6. The District recommends the discussions regarding the State and Federal Ambient Air Quality Standards (AAQS) and the District's current attainment plans be updated to reflect the most current information as follows:	This comment provides an introduction to Comments RA6-17 and RA6-18.
RA6-17	6a) The 2013 Federal Ambient Air Quality Standard for fine particulate matter (PM_{2.5}) has been reduced from 15 µg/m³ to 12 µg/m³. The District recommends that Table 4.3-2 on page 4.3-15 in the EIR be amended to reflect the current PM_{2.5} AAQS. Current attainment status and AAQS can be found on the District's website at: http://www.valleyair.org/aqinfo/attainment.htm.	This comment has been noted. As shown in Chapter 3 of this Final EIR, Table 4.3-2 of the Draft EIR has been amended to reflect this new standard.
RA6-18	6b) The District recommends that Table 4.3-2 on page 4.3-15 in the EIR be amended to reflect the current PM_{2.5} AAQS. Current attainment status and AAQS can be found on the District's website at:	This comment has been noted. As shown in Chapter 3 of this Final EIR, page 4.3-21 of the Draft EIR has been amended to reflect this new standard.

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	http://www.valleyair.org/aqinfo/attainment.htm. The District approved the 2012 PM2.5 Plan on December 20, 2012. The plan was then approved by the California Air Resources Board (ARB) on January 24, 2013. This plan assures the San Joaquin Valley Air Basin will comply with the Environmental Protection Agency (EPA) 2006 PM2.5 standard by the 2019 deadline. The District recommends that the discussion on page 4.3-21 in the EIR be amended to reflect the current status of the District's PM2.5 attainment plan. A copy of the District's 2012 PM2.5 Plan can be found on the District's website at: http://www.valleyair.org/Air_Quality_Plans/PM25Plans2012.htm.	
RA6-19	7. Referral documents for future development projects with the scope of the RAAP Specific Plan should include a project summary detailing, at a minimum, the land use designation, project size, and proximity to sensitive receptors and existing emission sources, and should identify the project as being with the scope of the RAAP Specific Plan.	Future development applications under the RAAP Specific Plan would be required to adhere to the Mitigation Measures within the RAAP Specific Plan EIR. Subsequent environmental review would be required for future discretionary approvals. As part of the future environmental review, subsequent projects would be required to evaluate air quality and GHG emissions impacts and be required to consider proximity to sensitive receptors
City of Modesto		
LA1-1	Thank you for providing the City of Modesto the opportunity to review the Army Ammunition Plant Specific Plan and Draft EIR. The City of Modesto offers the following comments:	This comment acknowledges that the City of Modesto has reviewed the EIR and introduces ensuing comments, but this comment does not state a specific concern or question regarding the sufficiency of the analysis or mitigation measures contained in the EIR. No response is required.
LA1-2	1. The intersections of Claus / Sylvan and Claus / Plainview should be added to the set of traffic study intersections. Significant project-related traffic volumes can be expected to occur south of the project, along Claus Road; and,	The intersection of Claus Road and Plainview Road was not selected for inclusion in the study due to the local nature of Plainview Road. Plainview Road is approximately 1-mile in length, connecting Roselle Avenue in the west to Claus Road in the east, providing access to active agricultural uses. The project is not expected to increase traffic volumes on Plainview Road, although it would add through trips to the intersection. Based on changes in traffic volumes along the Claus Road corridor between Terminal Avenue and Claribel Road, very few vehicles turn to/from Plainview Road and the addition of Project traffic through the corridor is not expected to appreciably increase delay for vehicles turning from Plainview Road to Claus Road. The intersection of Claus Road and Sylvan Avenue was recently signalized and additional capacity provided with the construction of turn-pockets. Recent studies indicate that this intersection operates at acceptable service levels with the improvements and the addition of Project traffic is not expected to degrade intersection operations in the near-term, including studies for Village One and Marketplace. The StanCOG RTP identifies widening of Claus Road from Briggsmore Avenue to Claribel Road from two lanes to six lanes, including intersection improvements at the Sylvan Avenue/Claus Road intersection. The improvement is identified as a Tier I Project fully funded project that is planned to be constructed by 2025. Widening of Sylvan Avenue from two lanes to four lanes from Claus Road to Roselle Avenue

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		is also identified as a Tier I RTP project. With these planned improvements in place, project traffic is expected to represent less than 2 percent of the overall intersection capacity and would not appreciably change the overall planned intersection design. Therefore, the intersections of Claus Road at Plainview and Sylvan Roads were not added to the analysis.
LA1-3	2. The trip distribution of 13% of AM trips from the east on Claribel seems high, relative to the 19% of AM trips from the south on Claus. This data should be confirmed.	Project trip distribution percentages were developed based on a review of existing travel patterns in the area, the location of existing and planned land uses within the region, and a select zone analysis using the Stanislaus Council of Governments (StanCOG) travel demand model. Project trip distribution percentages as presented in the Draft EIR were reviewed and no changes were made to the analysis.

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A P P E N D I X B

A I R Q U A L I T Y

RAAP Specific Plan - 2030 Buildout Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	116	1000sqft
Industrial Park	1412	1000sqft
Strip Mall	119	1000sqft

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	Utility Company	Pacific Gas & Electric Company
Climate Zone	3	2.2		
		Precipitation Freq (Days)		

1.3 User Entered Comments

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Project Characteristics - CO2 Intensity updated based on California Public Utilities Commission GHG Calculator, version 3c.

Land Use - *

Trips and VMT -

Demolition -

Vehicle Trips - Trip rates based on traffic report (Fehr & Peers, 2011).

Energy Use - *

Land Use Change -
 Sequestration -
 Energy Mitigation -
 Area Coating - *

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	1.92	12.70	11.32	0.02	1.33	0.63	1.96	0.32	0.63	0.95	0.00	1,671.04	1,671.04	0.15	0.00	1,674.14
2012	2.27	11.88	16.20	0.03	1.76	0.57	2.33	0.09	0.57	0.66	0.00	2,466.49	2,466.49	0.17	0.00	2,469.96
2013	2.07	10.89	14.89	0.03	1.76	0.51	2.28	0.09	0.51	0.60	0.00	2,438.78	2,438.78	0.15	0.00	2,441.94
2014	12.45	5.30	6.93	0.01	0.84	0.28	1.12	0.04	0.28	0.33	0.00	1,176.15	1,176.15	0.08	0.00	1,177.73
Total	18.71	40.77	49.34	0.09	5.69	1.99	7.69	0.54	1.99	2.54	0.00	7,752.46	7,752.46	0.55	0.00	7,763.77

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	1.92	12.70	11.32	0.02	0.63	0.63	1.26	0.32	0.63	0.95	0.00	1,671.04	1,671.04	0.15	0.00	1,674.14
2012	2.27	11.88	16.20	0.03	0.09	0.57	0.66	0.09	0.57	0.66	0.00	2,466.49	2,466.49	0.17	0.00	2,469.96

2013	2.07	10.89	14.89	0.03	0.09	0.51	0.60	0.09	0.51	0.60	0.00	2,438.78	2,438.78	0.15	0.00	2,441.94
2014	12.45	5.30	6.93	0.01	0.04	0.28	0.33	0.04	0.28	0.33	0.00	1,176.15	1,176.15	0.08	0.00	1,177.73
Total	18.71	40.77	49.34	0.09	0.85	1.99	2.85	0.54	1.99	2.54	0.00	7,752.46	7,752.46	0.55	0.00	7,763.77

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.13	1.15	0.97	0.01		0.00	0.09		0.00	0.09	0.00	3,446.88	3,446.88	0.25	0.11	3,485.27
Mobile	5.84	20.04	42.31	0.15	13.63	0.67	14.30	0.24	0.61	0.85	0.00	12,183.35	12,183.35	0.32	0.00	12,190.16
Waste						0.00	0.00		0.00	0.00	3,574.93	0.00	3,574.93	211.27	0.00	8,011.65
Water						0.00	0.00		0.00	0.00	0.00	4,990.81	4,990.81	213.32	5.47	11,165.10
Total	14.31	21.19	43.28	0.16	13.63	0.67	14.39	0.24	0.61	0.94	3,574.93	20,621.04	24,195.97	425.16	5.58	34,852.18

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.13	1.15	0.97	0.01		0.00	0.09		0.00	0.09	0.00	3,446.88	3,446.88	0.25	0.11	3,485.27
Mobile	5.84	20.04	42.31	0.15	13.63	0.67	14.30	0.24	0.61	0.85	0.00	12,183.35	12,183.35	0.32	0.00	12,190.16

Waste						0.00	0.00		0.00	0.00	3,574.93	0.00	3,574.93	211.27	0.00	8,011.65
Water						0.00	0.00		0.00	0.00	0.00	4,990.81	4,990.81	213.32	5.47	11,165.10
Total	14.31	21.19	43.28	0.16	13.63	0.67	14.39	0.24	0.61	0.94	3,574.93	20,621.04	24,195.97	425.16	5.58	34,852.18

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.25	2.00	1.15	0.00		0.10	0.10		0.10	0.10	0.00	170.30	170.30	0.02	0.00	170.72

Total	0.25	2.00	1.15	0.00		0.10	0.10		0.10	0.10	0.00	170.30	170.30	0.02	0.00	170.72
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.19	5.19	0.00	0.00	5.20
Total	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.19	5.19	0.00	0.00	5.20

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.25	2.00	1.15	0.00		0.10	0.10		0.10	0.10	0.00	170.30	170.30	0.02	0.00	170.72
Total	0.25	2.00	1.15	0.00		0.10	0.10		0.10	0.10	0.00	170.30	170.30	0.02	0.00	170.72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.19	5.19	0.00	0.00	5.20
Total	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.19	5.19	0.00	0.00	5.20

3.3 Site Preparation - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.27	0.00	0.27	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.35	0.76	0.00		0.07	0.07		0.07	0.07	0.00	108.80	108.80	0.01	0.00	109.08
Total	0.16	1.35	0.76	0.00	0.27	0.07	0.34	0.15	0.07	0.22	0.00	108.80	108.80	0.01	0.00	109.08

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.74	3.74	0.00	0.00	3.74
Total	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.74	3.74	0.00	0.00	3.74

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.27	0.00	0.27	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.35	0.76	0.00		0.07	0.07		0.07	0.07	0.00	108.80	108.80	0.01	0.00	109.08
Total	0.16	1.35	0.76	0.00	0.27	0.07	0.34	0.15	0.07	0.22	0.00	108.80	108.80	0.01	0.00	109.08

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.74	3.74	0.00	0.00	3.74
Total	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.74	3.74	0.00	0.00	3.74

3.4 Grading - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.33	0.00	0.33	0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.49	4.15	2.16	0.00		0.20	0.20		0.20	0.20	0.00	369.24	369.24	0.04	0.00	370.08
Total	0.49	4.15	2.16	0.00	0.33	0.20	0.53	0.13	0.20	0.33	0.00	369.24	369.24	0.04	0.00	370.08

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	10.38	10.38	0.00	0.00	10.40
Total	0.01	0.01	0.09	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	10.38	10.38	0.00	0.00	10.40

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.33	0.00	0.33	0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.49	4.15	2.16	0.00		0.20	0.20		0.20	0.20	0.00	369.24	369.24	0.04	0.00	370.08
Total	0.49	4.15	2.16	0.00	0.33	0.20	0.53	0.13	0.20	0.33	0.00	369.24	369.24	0.04	0.00	370.08

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.38	10.38	0.00	0.00	10.40
Total	0.01	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.38	10.38	0.00	0.00	10.40

3.5 Building Construction - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.32	2.11	1.26	0.00		0.15	0.15		0.15	0.15	0.00	192.39	192.39	0.03	0.00	192.94
Total	0.32	2.11	1.26	0.00		0.15	0.15		0.15	0.15	0.00	192.39	192.39	0.03	0.00	192.94

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.24	2.65	1.49	0.00	0.10	0.08	0.18	0.01	0.08	0.09	0.00	325.47	325.47	0.01	0.00	325.68
Worker	0.44	0.43	4.32	0.01	0.61	0.02	0.63	0.03	0.02	0.05	0.00	485.53	485.53	0.04	0.00	486.30
Total	0.68	3.08	5.81	0.01	0.71	0.10	0.81	0.04	0.10	0.14	0.00	811.00	811.00	0.05	0.00	811.98

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.32	2.11	1.26	0.00		0.15	0.15		0.15	0.15	0.00	192.39	192.39	0.03	0.00	192.94
Total	0.32	2.11	1.26	0.00		0.15	0.15		0.15	0.15	0.00	192.39	192.39	0.03	0.00	192.94

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.24	2.65	1.49	0.00	0.01	0.08	0.09	0.01	0.08	0.09	0.00	325.47	325.47	0.01	0.00	325.68
Worker	0.44	0.43	4.32	0.01	0.03	0.02	0.05	0.03	0.02	0.05	0.00	485.53	485.53	0.04	0.00	486.30
Total	0.68	3.08	5.81	0.01	0.04	0.10	0.14	0.04	0.10	0.14	0.00	811.00	811.00	0.05	0.00	811.98

3.5 Building Construction - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.73	4.87	3.10	0.01		0.33	0.33		0.33	0.33	0.00	478.23	478.23	0.06	0.00	479.48
Total	0.73	4.87	3.10	0.01		0.33	0.33		0.33	0.33	0.00	478.23	478.23	0.06	0.00	479.48

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.54	6.05	3.39	0.01	0.25	0.18	0.44	0.02	0.18	0.21	0.00	808.87	808.87	0.02	0.00	809.35
Worker	0.99	0.96	9.72	0.01	1.51	0.05	1.56	0.07	0.05	0.12	0.00	1,179.39	1,179.39	0.08	0.00	1,181.12
Total	1.53	7.01	13.11	0.02	1.76	0.23	2.00	0.09	0.23	0.33	0.00	1,988.26	1,988.26	0.10	0.00	1,990.47

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.73	4.87	3.10	0.01		0.33	0.33		0.33	0.33	0.00	478.23	478.23	0.06	0.00	479.48
Total	0.73	4.87	3.10	0.01		0.33	0.33		0.33	0.33	0.00	478.23	478.23	0.06	0.00	479.48

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.54	6.05	3.39	0.01	0.02	0.18	0.21	0.02	0.18	0.21	0.00	808.87	808.87	0.02	0.00	809.35
Worker	0.99	0.96	9.72	0.01	0.07	0.05	0.12	0.07	0.05	0.12	0.00	1,179.39	1,179.39	0.08	0.00	1,181.12

Total	1.53	7.01	13.11	0.02	0.09	0.23	0.33	0.09	0.23	0.33	0.00	1,988.26	1,988.26	0.10	0.00	1,990.47
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3.5 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.67	4.52	3.06	0.01		0.30	0.30		0.30	0.30	0.00	478.23	478.23	0.05	0.00	479.38
Total	0.67	4.52	3.06	0.01		0.30	0.30		0.30	0.30	0.00	478.23	478.23	0.05	0.00	479.38

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.49	5.51	3.07	0.01	0.25	0.16	0.42	0.02	0.16	0.19	0.00	808.85	808.85	0.02	0.00	809.28
Worker	0.90	0.86	8.76	0.01	1.51	0.05	1.56	0.07	0.05	0.12	0.00	1,151.71	1,151.71	0.08	0.00	1,153.28
Total	1.39	6.37	11.83	0.02	1.76	0.21	1.98	0.09	0.21	0.31	0.00	1,960.56	1,960.56	0.10	0.00	1,962.56

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	0.67	4.52	3.06	0.01		0.30	0.30		0.30	0.30	0.00	478.23	478.23	0.05	0.00	479.38
Total	0.67	4.52	3.06	0.01		0.30	0.30		0.30	0.30	0.00	478.23	478.23	0.05	0.00	479.38

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.49	5.51	3.07	0.01	0.02	0.16	0.19	0.02	0.16	0.19	0.00	808.85	808.85	0.02	0.00	809.28
Worker	0.90	0.86	8.76	0.01	0.07	0.05	0.12	0.07	0.05	0.12	0.00	1,151.71	1,151.71	0.08	0.00	1,153.28
Total	1.39	6.37	11.83	0.02	0.09	0.21	0.31	0.09	0.21	0.31	0.00	1,960.56	1,960.56	0.10	0.00	1,962.56

3.5 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.27	1.81	1.31	0.00		0.11	0.11		0.11	0.11	0.00	207.05	207.05	0.02	0.00	207.50
Total	0.27	1.81	1.31	0.00		0.11	0.11		0.11	0.11	0.00	207.05	207.05	0.02	0.00	207.50

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.19	2.17	1.22	0.00	0.11	0.06	0.17	0.01	0.06	0.07	0.00	349.97	349.97	0.01	0.00	350.14
Worker	0.36	0.33	3.40	0.01	0.65	0.02	0.68	0.03	0.02	0.05	0.00	486.53	486.53	0.03	0.00	487.15
Total	0.55	2.50	4.62	0.01	0.76	0.08	0.85	0.04	0.08	0.12	0.00	836.50	836.50	0.04	0.00	837.29

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.27	1.81	1.31	0.00		0.11	0.11		0.11	0.11	0.00	207.05	207.05	0.02	0.00	207.50
Total	0.27	1.81	1.31	0.00		0.11	0.11		0.11	0.11	0.00	207.05	207.05	0.02	0.00	207.50

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.19	2.17	1.22	0.00	0.01	0.06	0.07	0.01	0.06	0.07	0.00	349.97	349.97	0.01	0.00	350.14
Worker	0.36	0.33	3.40	0.01	0.03	0.02	0.05	0.03	0.02	0.05	0.00	486.53	486.53	0.03	0.00	487.15
Total	0.55	2.50	4.62	0.01	0.04	0.08	0.12	0.04	0.08	0.12	0.00	836.50	836.50	0.04	0.00	837.29

3.6 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.14	0.88	0.57	0.00		0.08	0.08		0.08	0.08	0.00	72.77	72.77	0.01	0.00	73.01
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.14	0.88	0.57	0.00		0.08	0.08		0.08	0.08	0.00	72.77	72.77	0.01	0.00	73.01

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.32	5.32	0.00	0.00	5.32
Total	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.32	5.32	0.00	0.00	5.32

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.14	0.88	0.57	0.00		0.08	0.08		0.08	0.08	0.00	72.77	72.77	0.01	0.00	73.01
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total	0.14	0.88	0.57	0.00		0.08	0.08		0.08	0.08	0.00	72.77	72.77	0.01	0.00	73.01
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.32	5.32	0.00	0.00	5.32
Total	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.32	5.32	0.00	0.00	5.32

3.7 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	11.44					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.08	0.05	0.00		0.01	0.01		0.01	0.01	0.00	7.01	7.01	0.00	0.00	7.03
Total	11.45	0.08	0.05	0.00		0.01	0.01		0.01	0.01	0.00	7.01	7.01	0.00	0.00	7.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.03	0.03	0.33	0.00	0.06	0.00	0.07	0.00	0.00	0.00	0.00	47.50	47.50	0.00	0.00	47.56
Total	0.03	0.03	0.33	0.00	0.06	0.00	0.07	0.00	0.00	0.00	0.00	47.50	47.50	0.00	0.00	47.56

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	11.44					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.08	0.05	0.00		0.01	0.01		0.01	0.01	0.00	7.01	7.01	0.00	0.00	7.03
Total	11.45	0.08	0.05	0.00		0.01	0.01		0.01	0.01	0.00	7.01	7.01	0.00	0.00	7.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.03	0.03	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.50	47.50	0.00	0.00	47.56
Total	0.03	0.03	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.50	47.50	0.00	0.00	47.56

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.84	20.04	42.31	0.15	13.63	0.67	14.30	0.24	0.61	0.85	0.00	12,183.35	12,183.35	0.32	0.00	12,190.16
Unmitigated	5.84	20.04	42.31	0.15	13.63	0.67	14.30	0.24	0.61	0.85	0.00	12,183.35	12,183.35	0.32	0.00	12,190.16
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	4,829.04	4,829.04	4829.04	16,754,915	16,754,915
Office Park	939.60	939.60	939.60	2,720,587	2,720,587
Strip Mall	4,339.93	4,339.93	4339.93	6,926,393	6,926,393
Total	10,108.57	10,108.57	10,108.57	26,401,895	26,401,895

4.3 Trip Type Information

	Miles	Trip %
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Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	14.70	6.60	6.60	59.00	28.00	13.00
Office Park	14.70	6.60	6.60	33.00	48.00	19.00
Strip Mall	14.70	6.60	6.60	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	2,194.15	2,194.15	0.22	0.08	2,224.92
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	2,194.15	2,194.15	0.22	0.08	2,224.92
NaturalGas Mitigated	0.13	1.15	0.97	0.01		0.00	0.09		0.00	0.09	0.00	1,252.74	1,252.74	0.02	0.02	1,260.36
NaturalGas Unmitigated	0.13	1.15	0.97	0.01		0.00	0.09		0.00	0.09	0.00	1,252.74	1,252.74	0.02	0.02	1,260.36
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					

Industrial Park	1.93726e+007	0.10	0.95	0.80	0.01		0.00	0.07		0.00	0.07	0.00	1,033.80	1,033.80	0.02	0.02	1,040.0
Office Park	2.77588e+006	0.01	0.14	0.11	0.00		0.00	0.01		0.00	0.01	0.00	148.13	148.13	0.00	0.00	149.03
Strip Mall	1.32685e+006	0.01	0.07	0.05	0.00		0.00	0.00		0.00	0.00	0.00	70.81	70.81	0.00	0.00	71.24
Total		0.12	1.16	0.96	0.01		0.00	0.08		0.00	0.08	0.00	1,252.74	1,252.74	0.02	0.02	1,260.3

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Industrial Park	1.93726e+007	0.10	0.95	0.80	0.01		0.00	0.07		0.00	0.07	0.00	1,033.80	1,033.80	0.02	0.02	1,040.0
Office Park	2.77588e+006	0.01	0.14	0.11	0.00		0.00	0.01		0.00	0.01	0.00	148.13	148.13	0.00	0.00	149.03
Strip Mall	1.32685e+006	0.01	0.07	0.05	0.00		0.00	0.00		0.00	0.00	0.00	70.81	70.81	0.00	0.00	71.24
Total		0.12	1.16	0.96	0.01		0.00	0.08		0.00	0.08	0.00	1,252.74	1,252.74	0.02	0.02	1,260.3

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Industrial Park	1.42894e+007					1,857.62	0.19	0.07	1,883.67
Office Park	1.5022e+006					195.29	0.02	0.01	198.02
Strip Mall	1.08647e+006					141.24	0.01	0.01	143.22
Total						2,194.15	0.22	0.09	2,224.91

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Industrial Park	1.42894e+007					1,857.62	0.19	0.07	1,883.67
Office Park	1.5022e+006					195.29	0.02	0.01	198.02
Strip Mall	1.08647e+006					141.24	0.01	0.01	143.22
Total						2,194.15	0.22	0.09	2,224.91

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	8.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.91					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	6.43					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.91					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	6.43					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					4,990.81	213.32	5.47	11,165.10
Unmitigated					4,990.81	213.32	5.47	11,165.10
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Industrial Park	6942.72 / 0					4,961.57	212.42	5.44	11,109.68
Office Park	20.6171 / 12.6363					20.48	0.63	0.02	38.82
Strip Mall	8.81463 / 5.40252					8.76	0.27	0.01	16.60
Total						4,990.81	213.32	5.47	11,165.10

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Industrial Park	6942.72 / 0					4,961.57	212.42	5.44	11,109.68
Office Park	20.6171 / 12.6363					20.48	0.63	0.02	38.82
Strip Mall	8.81463 / 5.40252					8.76	0.27	0.01	16.60

Total						4,990.81	213.32	5.47	11,165.10
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8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					3,574.93	211.27	0.00	8,011.65
Unmitigated					3,574.93	211.27	0.00	8,011.65
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Industrial Park	17378.5					3,527.67	208.48	0.00	7,905.74
Office Park	107.88					21.90	1.29	0.00	49.08
Strip Mall	124.95					25.36	1.50	0.00	56.84
Total						3,574.93	211.27	0.00	8,011.66

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Industrial Park	17378.5					3,527.67	208.48	0.00	7,905.74
Office Park	107.88					21.90	1.29	0.00	49.08
Strip Mall	124.95					25.36	1.50	0.00	56.84
Total						3,574.93	211.27	0.00	8,011.66

9.0 Vegetation

RAAP Existing
Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Industrial Park	674	1000sqft

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	Utility Company	Pacific Gas & Electric Company
Climate Zone	3	2.2		
		Precipitation Freq (Days)		

1.3 User Entered Comments

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Project Characteristics - CO2 Intensity based on California Public Utilities Commission GHG Calculator version 3c.

Land Use - *

Vehicle Trips - Trip rates based on traffic report (Fehr & Peers, 2011).

Energy Use - *

Area Coating -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	1.51	9.34	8.69	0.01	0.80	0.51	1.31	0.13	0.51	0.64	0.00	1,270.39	1,270.39	0.12	0.00	1,272.82
2012	5.28	3.36	3.60	0.01	0.30	0.20	0.50	0.01	0.20	0.21	0.00	539.68	539.68	0.05	0.00	540.64
Total	6.79	12.70	12.29	0.02	1.10	0.71	1.81	0.14	0.71	0.85	0.00	1,810.07	1,810.07	0.17	0.00	1,813.46

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	1.51	9.34	8.69	0.01	0.25	0.51	0.76	0.13	0.51	0.64	0.00	1,270.39	1,270.39	0.12	0.00	1,272.82
2012	5.28	3.36	3.60	0.01	0.01	0.20	0.21	0.01	0.20	0.21	0.00	539.68	539.68	0.05	0.00	540.64
Total	6.79	12.70	12.29	0.02	0.26	0.71	0.97	0.14	0.71	0.85	0.00	1,810.07	1,810.07	0.17	0.00	1,813.46

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.05	0.45	0.38	0.00		0.00	0.03		0.00	0.03	0.00	2,130.45	2,130.45	0.10	0.04	2,145.89

Mobile	1.52	5.50	13.12	0.01	1.29	0.17	1.47	0.06	0.17	0.23	0.00	1,477.17	1,477.17	0.09	0.00	1,478.99
Waste						0.00	0.00		0.00	0.00	1,683.89	0.00	1,683.89	99.51	0.00	3,773.70
Water						0.00	0.00		0.00	0.00	0.00	4,340.81	4,340.81	101.39	2.60	7,275.53
Total	4.98	5.95	13.50	0.01	1.29	0.17	1.50	0.06	0.17	0.26	1,683.89	7,948.43	9,632.32	201.09	2.64	14,674.11

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.05	0.45	0.38	0.00		0.00	0.03		0.00	0.03	0.00	2,130.45	2,130.45	0.10	0.04	2,145.89
Mobile	1.52	5.50	13.12	0.01	1.29	0.17	1.47	0.06	0.17	0.23	0.00	1,477.17	1,477.17	0.09	0.00	1,478.99
Waste						0.00	0.00		0.00	0.00	1,683.89	0.00	1,683.89	99.51	0.00	3,773.70
Water						0.00	0.00		0.00	0.00	0.00	4,340.81	4,340.81	101.39	2.60	7,275.53
Total	4.98	5.95	13.50	0.01	1.29	0.17	1.50	0.06	0.17	0.26	1,683.89	7,948.43	9,632.32	201.09	2.64	14,674.11

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.08	2.08	0.00	0.00	2.08
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.08	2.08	0.00	0.00	2.08

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.08	2.08	0.00	0.00	2.08
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.08	2.08	0.00	0.00	2.08

3.3 Site Preparation - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	0.05	0.45	0.25	0.00	0.09	0.02	0.11	0.05	0.02	0.07	0.00	36.27	36.27	0.00	0.00	36.36

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	1.25	0.00	0.00	1.25
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	1.25	0.00	0.00	1.25

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	0.05	0.45	0.25	0.00	0.09	0.02	0.11	0.05	0.02	0.07	0.00	36.27	36.27	0.00	0.00	36.36

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	1.25	0.00	0.00
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	1.25	0.00	0.00

3.4 Grading - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	0.20	1.66	0.87	0.00	0.13	0.08	0.21	0.05	0.08	0.13	0.00	147.69	147.69	0.02	0.00	148.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.15	4.15	0.00	0.00	4.16
Total	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.15	4.15	0.00	0.00	4.16

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	0.20	1.66	0.87	0.00	0.13	0.08	0.21	0.05	0.08	0.13	0.00	147.69	147.69	0.02	0.00	148.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15	4.15	0.00	0.00	4.16
Total	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15	4.15	0.00	0.00	4.16

3.5 Building Construction - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.19	2.06	1.16	0.00	0.08	0.06	0.14	0.01	0.06	0.07	0.00	252.57	252.57	0.01	0.00	252.73
Worker	0.35	0.35	3.49	0.00	0.49	0.02	0.51	0.02	0.02	0.04	0.00	391.81	391.81	0.03	0.00	392.42
Total	0.54	2.41	4.65	0.00	0.57	0.08	0.65	0.03	0.08	0.11	0.00	644.38	644.38	0.04	0.00	645.15

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.19	2.06	1.16	0.00	0.01	0.06	0.07	0.01	0.06	0.07	0.00	252.57	252.57	0.01	0.00	252.73
Worker	0.35	0.35	3.49	0.00	0.02	0.02	0.04	0.02	0.02	0.04	0.00	391.81	391.81	0.03	0.00	392.42

Total	0.54	2.41	4.65	0.00	0.03	0.08	0.11	0.03	0.08	0.11	0.00	644.38	644.38	0.04	0.00	645.15
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3.5 Building Construction - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.08	0.94	0.53	0.00	0.04	0.03	0.07	0.00	0.03	0.03	0.00	126.26	126.26	0.00	0.00	126.34
Worker	0.16	0.16	1.58	0.00	0.25	0.01	0.25	0.01	0.01	0.02	0.00	191.44	191.44	0.01	0.00	191.72
Total	0.24	1.10	2.11	0.00	0.29	0.04	0.32	0.01	0.04	0.05	0.00	317.70	317.70	0.01	0.00	318.06

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.08	0.94	0.53	0.00	0.00	0.03	0.03	0.00	0.03	0.03	0.00	126.26	126.26	0.00	0.00	126.34
Worker	0.16	0.16	1.58	0.00	0.01	0.01	0.02	0.01	0.01	0.02	0.00	191.44	191.44	0.01	0.00	191.72
Total	0.24	1.10	2.11	0.00	0.01	0.04	0.05	0.01	0.04	0.05	0.00	317.70	317.70	0.01	0.00	318.06

3.6 Paving - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	2.03	0.00	0.00	2.03
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	2.03	0.00	0.00	2.03

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	2.03	0.00	0.00	2.03
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	2.03	0.00	0.00	2.03

3.7 Architectural Coating - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.68					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	4.69	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.71	7.71	0.00	0.00	7.72
Total	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.71	7.71	0.00	0.00	7.72

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.68					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	4.69	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.71	7.71	0.00	0.00	7.72
Total	0.01	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.71	7.71	0.00	0.00	7.72

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Mitigated	1.52	5.50	13.12	0.01	1.29	0.17	1.47	0.06	0.17	0.23	0.00	1,477.17	1,477.17	0.09	0.00	1,478.99
Unmitigated	1.52	5.50	13.12	0.01	1.29	0.17	1.47	0.06	0.17	0.23	0.00	1,477.17	1,477.17	0.09	0.00	1,478.99
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	721.18	721.18	721.18	2,502,218	2,502,218
Total	721.18	721.18	721.18	2,502,218	2,502,218

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	14.70	6.60	6.60	59.00	28.00	13.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	1,636.98	1,636.98	0.09	0.03	1,649.42
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	1,636.98	1,636.98	0.09	0.03	1,649.42
NaturalGas Mitigated	0.05	0.45	0.38	0.00		0.00	0.03		0.00	0.03	0.00	493.47	493.47	0.01	0.01	496.47
NaturalGas Unmitigated	0.05	0.45	0.38	0.00		0.00	0.03		0.00	0.03	0.00	493.47	493.47	0.01	0.01	496.47
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Industrial Park	9.24728e+006	0.05	0.45	0.38	0.00		0.00	0.03		0.00	0.03	0.00	493.47	493.47	0.01	0.01	496.47
Total		0.05	0.45	0.38	0.00		0.00	0.03		0.00	0.03	0.00	493.47	493.47	0.01	0.01	496.47

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Industrial Park	9.24728e+006	0.05	0.45	0.38	0.00		0.00	0.03		0.00	0.03	0.00	493.47	493.47	0.01	0.01	496.47
Total		0.05	0.45	0.38	0.00		0.00	0.03		0.00	0.03	0.00	493.47	493.47	0.01	0.01	496.47

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Industrial Park	6.82088e+006					1,636.98	0.09	0.03	1,649.42
Total						1,636.98	0.09	0.03	1,649.42

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Industrial Park	6.82088e+006					1,636.98	0.09	0.03	1,649.42
Total						1,636.98	0.09	0.03	1,649.42

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr											MT/yr				

Mitigated	3.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	3.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.78					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.63					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.78					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.63					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.41	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					4,340.81	101.39	2.60	7,275.53
Unmitigated					4,340.81	101.39	2.60	7,275.53
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Industrial Park	3314.02 / 0					4,340.81	101.39	2.60	7,275.53
Total						4,340.81	101.39	2.60	7,275.53

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
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Land Use	Mgal	tons/yr				MT/yr			
Industrial Park	3314.02 / 0					4,340.81	101.39	2.60	7,275.53
Total						4,340.81	101.39	2.60	7,275.53

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					1,683.89	99.51	0.00	3,773.70
Unmitigated					1,683.89	99.51	0.00	3,773.70
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Industrial Park	8295.38					1,683.89	99.51	0.00	3,773.70

Total						1,683.89	99.51	0.00	3,773.70
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Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Industrial Park	8295.38					1,683.89	99.51	0.00	3,773.70
Total						1,683.89	99.51	0.00	3,773.70

9.0 Vegetation

Riverbank Project - Modesto, Ca
Claus Road Traffic Data and PM2.5 - 45 mph
North of Project Site

Analysis Year = 2020

Vehicle Type	2020 Caltrans Number Vehicles (veh/day)	2020 Number Vehicles (veh/day)	2020 Percent Diesel	Number Diesel Vehicles (veh/day)	Vehicle Speed (mph)	Emission Factors	
						Diesel Vehicles DPM (g/VTM)	All Vehicles Exhaust PM2.5 (g/VTM)
LDA	3,259	3,259	0.33%	11	45	0.0086	0.0012
LDT	1,698	1,698	0.08%	1	45	0.0128	0.0015
MDT	0	0	12.61%	0	45	0.0205	0.0028
HDT	502	502	92.55%	465	45	0.0625	0.0592
Total	5,459	5,459	-	477	45	-	-
Mix Avg Emission Factor						0.06113	0.00664

Increase From 2020 1.00
Vehicles/Direction 2,730 238
Avg Vehicles/Hour/Direction 114 9.9

Traffic Data Year = 2020

	Total		Truck by Axle			
	Total	Truck	2	3	4	5
Claus Rd - North of Project Site	5,459	502	0	167	167	167

Riverbank Project - Modesto, Ca
Claus Road Traffic Data and PM2.5 - 45 mph
South of Project Site

Analysis Year = 2020

Vehicle Type	2020 Caltrans Number Vehicles (veh/day)	2020 Number Vehicles (veh/day)	2020 Percent Diesel	Number Diesel Vehicles (veh/day)	Vehicle Speed (mph)	Emission Factors	
						Diesel Vehicles DPM (g/VTM)	All Vehicles Exhaust PM2.5 (g/VTM)
LDA	2,777	2,777	0.33%	9	45	0.0086	0.0012
LDT	1,446	1,446	0.08%	1	45	0.0128	0.0015
MDT	0	0	12.61%	0	45	0.0205	0.0028
HDT	428	428	92.55%	396	45	0.0625	0.0592
Total	4,651	4,651	-	406	45	-	-
Mix Avg Emission Factor						0.06113	0.00664

Increase From 2020 1.00
Vehicles/Direction 2,326 203
Avg Vehicles/Hour/Direction 97 8.5

Traffic Data Year = 2020

	Total		Truck by Axle			
	Total	Truck	2	3	4	5
Claus Rd - South of Project Site	4,651	428	0	143	143	143

Riverbank Project - Modesto, Ca

Claus Road

DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions

Year = 2020

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	Diesel ADT	Average Speed (mph)	Average VPH Diesel Vehicles						Composite Average Emissions (g/mi)
										Average Vehicles per Hour	LDA	LDT	LDA & LDT	MDT	HDT	
NB_N_Claus	Northbound Claus Rd North of Site	N	1	1161	12	3.7	1.8	238	45	9.9	0.2	0.0	0.3	0.0	9.7	0.06113
SB_N_Claus	Southbound Claus Rd North of Site	S	1	1159	12	3.7	1.8	238	45	9.9	0.2	0.0	0	0.0	9.7	0.06113
NB_S_Claus	Northbound Claus Rd South of Site	N	1	1555	12	3.7	1.8	203	45	8.5	0.2	0.0	0.2	0.0	8.3	0.06113
SB_S_Claus	Southbound Claus Rd South of Site	S	1	1555	12	3.7	1.8	203	45	8.5	0.2	0.0	0	0.0	8.3	0.06113

Riverbank Project, Modesto, CA**AERMOD DPM Risk Modeling Parameters and Maximum Cancer Risk From Claus Rd, Modesto****DPM Cancer Risks from DPM Emissions in 2020 for 70 Years****Receptor Information**

Number of Receptors 65
 Receptor Height = ground level
 Receptor distances = variable

Meteorological Conditions

Modesto Airport - Hourly Met Data 2005 - 2009
 Land Use Classification Rural

Cancer Risk Calculation Method

$$\text{Inhalation Dose} = C_{\text{air}} \times \text{DBR} \times A \times \text{EF} \times \text{ED} \times 10^{-6} / \text{AT}$$

Where: C_{air} = concentration in air ($\mu\text{g}/\text{m}^3$)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 ED = Exposure duration (years)
 AT = Averaging time period over which exposure is averaged.
 10^{-6} = Conversion factor

Inhalation Dose Factors

Exposure Type	Value ¹					
	DBR (L/kg BW-day)	A (-)	Exposure (hr/day)	EF (days/yr)	ED (Years)	AT (days)
Residential (70-Year)	393	1	24	350	70	25,550

¹ Default values recommended by OEHHA & Bay Area Air Quality Management District

$$\begin{aligned} \text{Cancer Risk (per million)} &= \text{CPF} \times \text{Inhalation Dose} \times 1.0\text{E}6 \\ &= \text{URF} \times C_{\text{air}} \end{aligned}$$

Where: CPF = Cancer potency factor ($\text{mg}/\text{kg}\cdot\text{day}$)⁻¹
 URF = Unit risk factor (cancer risk per $\mu\text{g}/\text{m}^3$)

Diesel Particulate Matter Unit Risk Factors

Exposure Type	CPF ($\text{mg}/\text{kg}\cdot\text{day}$) ⁻¹	URF (Risk/million/ $\mu\text{g}/\text{m}^3$)
Residential (70-Yr Exposure)	1.10E+00	414.5

MEI Cancer Risk Calculation from Claus Rd DPM emissions

Meteorological Data Years	Maximum Modeled Annual DPM Concentration ($\mu\text{g}/\text{m}^3$)
	2020
2005 - 2009	0.0158
70-yr Maximum Risk ^a	6.5

Notes:

Maximum concentrations occur at UTM 683,228.5 m east, 4,175,260.6 m north.

a Maximum cancer risk (per million) calculated assuming constant exposure over a 70-year period to 2020 DPM Concentration

Figure 1. Project Site, Roadway Links for Dispersion Modeling, and Receptor Locations



Riverbank - On-Site Truck Distribution Methods and Assumptions

The distribution of truck travel within the project area was based on trip data from the traffic report and initial information on the location, size, and types of land uses for the project development areas. The project would include areas for research and development (R&D) and industrial uses at the northern and southern portions of the site, retail development adjacent to Claus road near the central and southern portions of the site, and realignment of existing parking areas in the central portion of the site near Claus road. These areas are identified in Figures 1. Also shown on the figures are potential truck routes within each area that were used for modeling.

Based on the traffic report the total daily trips for all vehicles will be 10,110, with 930 daily truck trips (see trip generation table below), or 9.2% trucks. The truck trips were calculated for industrial land use only. There were no truck trips calculated for the other land uses (e.g., R&D and retail). The 10,110/ 930 vehicle/truck trips include trips from existing uses at the site. That is they include both existing and proposed trips. Presumably, some of the existing trips were for trucks, although the breakdown of vehicle type for the existing trips was not provided. New project trips were reported as 9,390 daily trips for all vehicles. Assuming 9.2% trucks, the number of existing truck trips was estimated as 67.

In order to distribute the truck trips to the different development areas, it was assumed that 863 trips (930-67) were distributed between the new R&D/industrial areas based on the estimated sizes of the areas. The remaining 67 trips were distributed between the two retail areas and to the main road into the existing industrial area (which would include some new industrial uses). 50 trips were assigned to the main road, 11 trips to the central retail area, and 6 trips to the southern retail area. The truck trip distribution calculations are shown in the table below. Figure 1 shows the number of daily trucks assigned to each development area. There would be 2 trips per daily truck.

**TABLE 6
PROJECT TRIP GENERATION ESTIMATES**

Land Use	ITE Code	Units	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Industrial	Passenger Vehicle Trips ¹	1,411,542 square feet	127	57	184	70	170	240	3,900
Industrial	Truck Trips ¹	1,411,542 square feet	28	42	70	42	28	70	930
Total Industrial			155	99	254	112	198	310	4,830
R&D	760 ²	116,366 square feet	118	24	142	19	106	125	940
Retail	820 ³	119,058 square feet	73	46	119	218	226	444	5,110
Pass-By Trips ⁴			0	0	0	-34	-34	-68	-770
Total Trips			346	170	169	315	496	811	10,110
Less Existing Uses⁵			-27	-8	-35	-8	-36	-44	-720
Potential Net New Trip Generation			319	161	480	307	460	767	9,390

Notes:

1. Trip generation based on documented trip generation rates for similar industrial facilities :
 AM: $T = 0.19 (X)$; Enter = 61%, Exit=39% (25% Trucks)
 PM: $T = 0.22(X)$; Enter = 36%, Exit = 64% (22% Trucks)
 Daily: $3.42 (X)$ (19 % Trucks)
 Where: T = trips generated, X = 1,000 square feet, Ln = natural log
 2. Trip generation based on Institute of Transportation Engineers (ITE), Trip Generation, (8th Edition) regression equations for Research and Development Center (Land Use Code 760) :
 AM: $1.22 (X)$; Enter = 83%, Exit=17%
 PM: $1.07 (X)$; Enter = 15%, Exit = 85%
 Daily: $8.11 (X)$
 Where: T = trips generated, X = 1,000 square feet, Ln = natural log
 3. Trip generation based on Institute of Transportation Engineers (ITE), Trip Generation, (8th Edition) regression equations for Shopping Center (Land Use Code 820) :
 AM: $\ln(T) = 0.59 \ln(X) + 2.32$; Enter = 61%, Exit=39%
 PM: $\ln(T) = 0.67 \ln(X) + 3.37$; Enter = 49%, Exit = 51%
 Daily: $\ln(T) = 0.65 \ln(X) + 5.83$
 Where: T = trips generated, X = 1,000 square feet, Ln = natural log
 4. Trip pass-by rate based on Institute of Transportation Engineers (ITE), Trip Generation Handbook average pass-by for Shopping Center (Land Use Code 820). Average Weekday pass-by rate: 15% during the PM peak hour. No pass-by rate assumed during the AM peak hour, a 15% pass-by rate assumed for daily trip total.
 5. Based on driveway counts conducted at the existing RAAP driveways.
- Source: *Trip Generation* (8th Edition), ITE, 2008; *Trip Generation Manual*, ITE, 2004, and Fehr & Peers, 2011.

Trip Distribution Ca

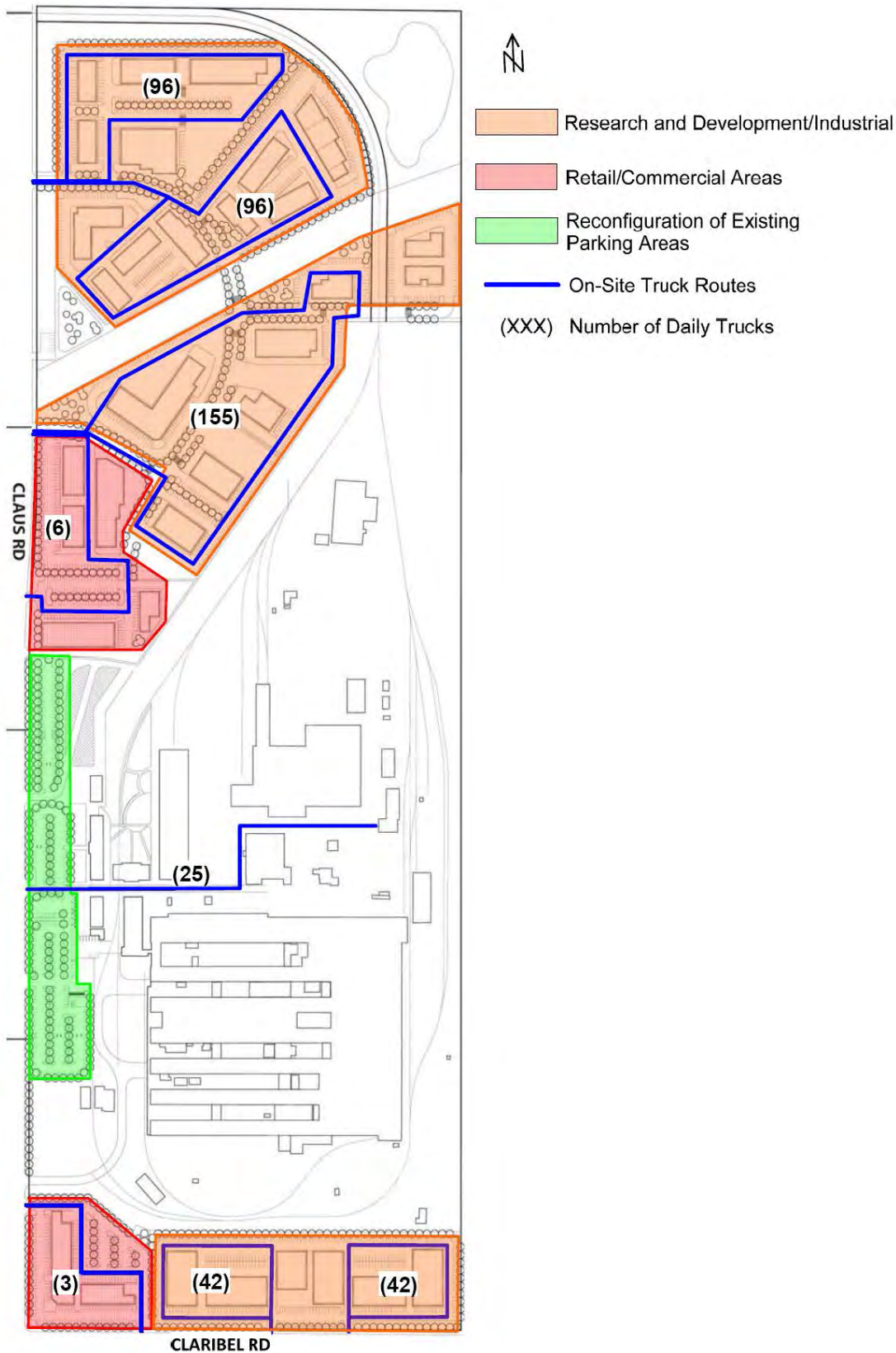
Area/Roads

North R & D and Indust
 North Road A
 North Road B
 Central R & D and Indus
 Central Road
 South R & D and Indust
 South Road A
 South Road B

Central Retail Area
 South Retail Area

Main Road
Total

Figure 1. Project Site, Development Areas, On-Site Truck Routes, and Daily Truck Traffic



Attachment

Riverbank On-Site Operation Truck DPM Emissions 2020

Truck Route	Line Source	Vehicle	Daily Number	Total Annual	Travel Speed	Idle Emission Factor ³	PM2.5 Emission Factor ³	Operation ⁴ Schedule	Travel Distance		Annual DPM Emissions (lb/year)		Average Hourly Emissions
	Name	Type ¹	Trucks	Trucks ²	(mph)	(g/hr)	(g/mi)	(hrs/day)	(feet)	(miles)	Travel	Idle ⁵	(lb/hr)
	<u>On-Site Truck Travel</u>												
North R & D and Industrial Area	A_N_RDI	HHDT	96	35,040	15	0.1227	0.0675	24	2,383	0.45	2.35	1.58	4.49E-04
North Road A	B_N_RDI	HHDT	96	35,040	15	0.1227	0.0675	24	3,161	0.60	3.12	1.58	5.37E-04
North Road B													
Central R & D and Industrial Area	R_C_RDI	HHDT	155	56,575	15	0.1227	0.0675	24	3,409	0.65	5.44	2.55	9.12E-04
Central Road													
South R & D and Industrial Area	A_S_RDI	HHDT	42	15,330	15	0.1227	0.0675	24	1,211	0.23	0.52	0.69	1.39E-04
South Road A	B_S_RDI	HHDT	42	15,330	15	0.1227	0.0675	24	1,171	0.22	0.51	0.69	1.37E-04
South Road B													
Central Retail Area	R_C_RTL	HHDT	6	2,190	15	0.1227	0.0675	24	1,208	0.23	0.07	0.10	1.98E-05
South Retail Area	R_S_RTL	HHDT	3	1,095	15	0.1227	0.0675	24	777	0.15	0.02	0.05	8.38E-06
Main Road	R-MAIN	HHDT	25	9,125	15	0.1227	0.0675	24	2,679	0.51	0.69	0.41	1.26E-04

¹ HHDT = heavy heavy duty truck

² Annual trips - Based on 365 days of operation

³ Emission factors from EMFAC2011 for San Joaquin Valley for operation in 2020 and assumes all trucks are diesel.

⁴ Operation hours assumed to be 24 hours per day, 365 days per year

⁵ Assumes 5 minutes idle per trip (10 minutes total per truck)

Riverbank Project, Modesto, CA

AERMOD DPM Risk Modeling Parameters and Maximum Cancer Risk From On-Site Truck Travel DPM Cancer Risks from DPM Emissions in 2020 for 70 Years

Receptor Information

Number of Receptors 72
Receptor Height = 1.5 meters
Receptor distances = variable

Meteorological Conditions

Modesto Airport - Hourly Met Data 2005 - 2009
Land Use Classification Rural

Cancer Risk Calculation Method

$$\text{Inhalation Dose} = C_{\text{air}} \times \text{DBR} \times A \times \text{EF} \times \text{ED} \times 10^{-6} / \text{AT}$$

Where: C_{air} = concentration in air ($\mu\text{g}/\text{m}^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
ED = Exposure duration (years)
AT = Averaging time period over which exposure is averaged.
 10^{-6} = Conversion factor

Inhalation Dose Factors

Exposure Type	Value ¹					
	DBR (L/kg BW-day)	A (-)	Exposure (hr/day)	EF (days/yr)	ED (Years)	AT (days)
Residential (70-Year)	393	1	24	350	70	25,550

¹ Default values recommended by OEHHA & Bay Area Air Quality Management District

$$\begin{aligned}\text{Cancer Risk (per million)} &= \text{CPF} \times \text{Inhalation Dose} \times 1.0\text{E}6 \\ &= \text{URF} \times C_{\text{air}}\end{aligned}$$

Where: CPF = Cancer potency factor ($\text{mg}/\text{kg}\cdot\text{day}$)⁻¹
URF = Unit risk factor (cancer risk per $\mu\text{g}/\text{m}^3$)

Diesel Particulate Matter Unit Risk Factors

Exposure Type	CPF ($\text{mg}/\text{kg}\cdot\text{day}$) ⁻¹	URF (Risk/million/ $\mu\text{g}/\text{m}^3$)
Residential (70-Yr Exposure)	1.10E+00	414.5

MEI Cancer Risk Calculation from Claus Rd DPM emissions

Meteorological Data Years	Maximum Modeled Annual DPM Concentration ($\mu\text{g}/\text{m}^3$)
	2020
2005 - 2009	0.0103
70-yr Maximum Risk ^a	4.3

Notes:

Maximum concentrations occur at UTM 683,107.9 m east, 4,176,965.0 m north.

a Maximum cancer risk (per million) calculated assuming constant exposure over a 70-year period to 2020 DPM Concentration

Riverbank Project, Modesto, CA

AERMOD DPM Risk Modeling Parameters and Maximum Cancer Risk

Cumulative Cancer Risk from On-Site & Off-Site Truck Travel

DPM Cancer Risks from DPM Emissions in 2020 for 70 Years

Receptor Information

Number of Receptors	72
Receptor Height =	1.5 meters
Receptor distances =	variable

Meteorological Conditions

Modesto Airport - Hourly Met Data	2005 - 2009
Land Use Classification	Rural

Cancer Risk Calculation Method

$$\text{Inhalation Dose} = C_{\text{air}} \times \text{DBR} \times A \times \text{EF} \times \text{ED} \times 10^{-6} / \text{AT}$$

Where: C_{air} = concentration in air ($\mu\text{g}/\text{m}^3$)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

AT = Averaging time period over which exposure is averaged.

10^{-6} = Conversion factor

Inhalation Dose Factors

Exposure Type	Value ¹					
	DBR (L/kg BW-day)	A (-)	Exposure (hr/day)	EF (days/yr)	ED (Years)	AT (days)
Residential (70-Year)	393	1	24	350	70	25,550

¹ Default values recommended by OEHH& Bay Area Air Quality Management District

$$\text{Cancer Risk (per million)} = \text{CPF} \times \text{Inhalation Dose} \times 1.0\text{E}6$$

$$= \text{URF} \times C_{\text{air}}$$

Where: CPF = Cancer potency factor ($\text{mg}/\text{kg}\cdot\text{day}$)⁻¹

URF = Unit risk factor (cancer risk per $\mu\text{g}/\text{m}^3$)

Diesel Particulate Matter Unit Risk Factors

Exposure Type	CPF ($\text{mg}/\text{kg}\cdot\text{day}$) ⁻¹	URF (Risk/million/ $\mu\text{g}/\text{m}^3$)
Residential (70-Yr Exposure)	1.10E+00	414.5

MEI Cancer Risk Calculation from Claus Rd DPM emissions

Meteorological Data Years	Maximum Modeled Annual DPM Concentration ($\mu\text{g}/\text{m}^3$)
	2020
2005 - 2009	0.0217
70-yr Maximum Risk ^a	9.0

Notes:

Maximum concentrations occur at UTM 683,107.9 m east, 4,176,965.0 m north.

a Maximum cancer risk (per million) calculated assuming constant exposure over a 70-year period to 2020 DPM Concentration

A P P E N D I X H

C O M M E N T S R E C E I V E D O N T H E D R A F T E I R

RECEIVED APR 01 2013

STATE OF CALIFORNIA

Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
(916) 657-5390 - FAX

March 29, 2013

Ms. Debbie Olson, Planner

City of Riverbank

Riverbank Local Development Authority

5300 Klaus Road, Suite 1
Modesto, CA 95357

RE: SCH# 2011022015 CEQA Notice of Completion; draft Environmental Impact Report (DEIR) – **"Riverbank Army Ammunition Plant Specific Plan Project;"** located on 143-acres in the City of Riverbank; Stanislaus County, California

Dear Ms. Olson:

The Native American Heritage Commission (NAHC) has reviewed the CEQA Notice regarding the above referenced project. In the 1985 Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resources, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064(b)). To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

Contact the appropriate Information Center for a record search to determine if a part or all of the area of project effect (APE) has been previously surveyed for cultural resources, which we know that it has. The NAHC recommends that known cultural resources recorded on or adjacent to the APE be listed in the draft Environmental Impact Report.

If an additional archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey. We suggest that this be coordinated with the NAHC, if possible. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure pursuant to California Government Code Section 6254.10. Contact has been made to the Native American Heritage Commission for a Sacred

SA1-1

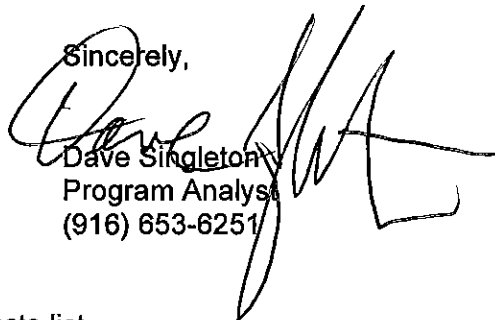
SA1-2

Lands File Check, and cultural resources have not been identified to your agency. A list of appropriate Native American Contacts for consultation concerning the project site has been provided and is attached to this letter to determine if the proposed active might impinge on any cultural resources. Lack of surface evidence of archeological resources does not preclude their subsurface existence.

Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans. Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

SA1-3

Sincerely,



Dave Singleton
Program Analyst
(916) 653-6251

CC: State Clearinghouse

Attachment: Native American Contacts list

**Native American Contacts
Stanislaus County
March 29, 2013**

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 Yokuts
Porterville , CA 93258
chairman@tulerivertribe-nsn.
(559) 781-4271
(559) 781-4610 FAX

Southern Sierra Miwuk Nation
Anthony Brochini, Chairperson
P.O. Box 1200 Miwok
Mariposa , CA 95338 Pauite
tony_brochini@nps.gov Northern Valley Yokut
209-628-0085 cell

Buena Vista Rancheria
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 Me-Wuk / Miwok
Sacramento , CA 95811
rhonda@buenavistatribe.
916 491-0011
916 491-0012 - fax

Tuolumne Band of Me-Wuk
Kevin Day, Chairperson
P.O. Box 699 Me-Wuk - Miwok
Tuolumne , CA 95379
receptionist@mlode.com
(209) 928-3475 - Tribal
Office
(209) 928-1677 - Fax

California Valley Miwok Tribe
Silvia Burley, Chairperson
10601 N Escondido PL Miwok
Stockton , CA 95212
office@cvmmt.net
209-931-4567
209-931-4333

Tuolumne Band of Me-Wuk
Mary Camp, Tribal Administrator
P.O. Box 699 Me-Wuk - Miwok
Tuolumne , CA 95379
receptionist@mlode.com
(209) 928-3475 - Tribal
Office
(209) 928-1677 - Fax

North Valley Yokuts Tribe
Katherine Erolinda Perez
PO Box 717 Ohlone/Costanoan
Linden , CA 95236 Northern Valley Yokuts
(209) 887-3415 Bay Miwok
canutes@verizon.net

Calaveras Band of Mi-Wuk Indians
Gloria Grimes, Chairperson
PO Box 899 Mi-Wuk
West Point , CA 95255
CBmiwukindians@aol.com
(209-470-8688

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2011022015; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the Riverbank Army Ammunition Plan Specific Plan; located in the City of Riverbank; Stanislaus County, California.

**Native American Contacts
Stanislaus County
March 29, 2013**

Southern Sierra Miwuk Nation
Les James, Spiritual Leader

PO Box 1200

Mariposa , CA 95338

209-966-3690

Miwok

Pauite

Northern Valley Yokut

Calaveras Band of Mi-Wuk Indians

Adam Lewis, Tribal Preservation Assistant

PO Box 899

Mi-Wuk

West Point , CA 95255

Tuolumne Band of Me-Wuk

Stanley Cox, Cultural Resources Dr

P.O. Box 699

Me-Wuk - Miwok

Tuolumne , CA 95379

receptionist@mlode.com

(209) 928-3475 - Tribal

Office

(209) 928-1677 - Fax

Tuolumne Band of Me-Wuk

Reba Fuller

P.O. Box 699

Me-Wuk - Miwok

Tuolumne , CA 95379

rfuller@mlode.com

(209) 928-3475 - Tribal

Office

(209) 928-1677 - Fax

Calaveras Band of Mi-Wuk Indians

Debra Grimes, Cultural Res. Specialist

PO Box 1015

Mi-Wuk

West Point , CA 95255

Dmiwuk@aol.com

209-770-4137

209-470-8688

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2011022015; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the Riverbank Army Ammunition Plan Specific Plan; located in the City of Riverbank; Stanislaus County, California.



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

6 May 2013

Debbie Olson
City of Riverbank
5300 Claus Road, Suite 1
Modesto, CA 95357

CERTIFIED MAIL
7012 2210 0002 1419 9937

COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, RIVERBANK ARMY AMMUNITION PLANT SPECIFIC PLAN PROJECT, SCH NO. 2011022015, STANISLAUS COUNTY

Pursuant to the State Clearinghouse's 27 March 2013 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Environmental Impact Report* for the Riverbank Army Ammunition Plant Specific Plan Project, located in Stanislaus County.

SA2-1

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.

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).

SA2-2

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.

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

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.

SA2-3

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

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.

SA2-4

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

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.

SA2-5

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.

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.

Clean Water Act Section 401 Permit – Water Quality Certification

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.

SA2-6

Waste Discharge Requirements

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.

SA2-7

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 tleak@waterboards.ca.gov.



for Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

COMMENT LETTER # SA3

STATE OF CALIFORNIA--BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION

DISTRICT 10

P.O. BOX 2048, STOCKTON, CA 95201

(1976 E. DR. MARTIN LUTHER KING JR. BLVD. 95205)

PHONE (209) 948-7943

FAX (209) 948-3670

TTY 711



*Flex your power!
Be energy efficient!*

May 10, 2013

10-STA-108-PM 33.38 RAAP Specific Plan

Debbie Olson
City of Riverbank
5300 Claus Road, Suite 1
Riverbank, CA 95357

Dear Ms. Olson:

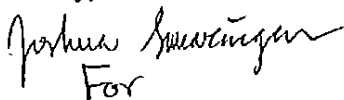
The California Department of Transportation (Department) appreciates the opportunity to review and comment on the DEIR for the for the RAAP Specific Plan which includes 173 acres. This includes 146 acre primary site of which portions are currently underdeveloped and a 27 acre evaporation pond. The Department has the following comments:

1. The existing plus approved/pending projects scenario should be included as part of the scenarios being analyzed.
2. Please provide the electronic files that will be used to analyze the traffic study when the traffic study is submitted.
3. Various intersections along SR-108 do not meet STAA off-tracking requirements for turning movements. The project needs to consider the impact of any potentially generated STAA truck traffic turning movements at intersections due to its development since this would create a safety issue at these intersections.

Please refer to the letter to the City of Riverbank dated July 19, 2010 regarding related intersections along SR 108 that do not meet STAA. If a copy is needed for reference, please contact the Joshua Swearingen (contact information below).

If you have any questions or would like to discuss our comments in more detail, please contact Joshua Swearingen at (209) 948-7142 (e-mail: joshua_swearingen@dot.ca.gov) or me at (209) 941-1921.

Sincerely,


For

Tom Dumas, Chief
Office of Metropolitan Planning

"Caltrans improves mobility across California"

SA3-1

SA3-2

SA3-3

SA3-4

SA3-5



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

RECEIVED MAY 14 2013

May 13, 2013

Debbie Olson
City of Riverbank
5300 Claus Road, Suite 1
Modesto, CA 95357

Subject: Riverbank Army Ammunition Plant Specific Plan
SCH#: 2011022015

Dear Debbie Olson:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on May 10, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures

cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

SA4-1

**Document Details Report
State Clearinghouse Data Base**

SCH# 2011022015

Project Title Riverbank Army Ammunition Plant Specific Plan

Lead Agency Riverbank, City of

Type EIR Draft EIR

Description The project consists of adoption of a Specific Plan to guide the reuse of Riverbank Army Ammunition Plant. This is a 143 acre site that will be used for commercial development (7.62 acres) and industrial development. A portion of the site is already developed with more than 760,000 sf of industrial buildings. The Specific Plan addresses the permitted land uses and development standards.

Lead Agency Contact

Name Debbie Olson

Agency City of Riverbank

Phone 209/863-8352

Fax

email

Address 5300 Claus Road, Suite 1

City Modesto

State CA **Zip** 95357

Project Location

County Stanislaus

City

Region

Lat / Long 37° 42' 53" N / 120° 55' 18" W

Cross Streets Claus Road and Claribel Road

Parcel No.

Township

Range

Section

Base

Proximity to:

Highways Hwy 108

Airports No

Railways BNSF

Waterways Stanislaus River

Schools Riverbank HS

Land Use Industrial

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Water Supply; Growth Inducing; Landuse; Cumulative Effects; Other Issues; Aesthetic/Visual

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 4; Office of Historic Preservation; Department of Parks and Recreation; Central Valley Flood Protection Board; Department of Water Resources; Office of Emergency Management Agency, California; California Highway Patrol; Caltrans, District 10; Air Resources Board, Major Industrial Projects; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Date Received 03/27/2013

Start of Review 03/27/2013

End of Review 05/10/2013

COMMENT LETTER # RA1



1231 Eleventh St.
P.O. Box 4060
Modesto, CA 95352
(209) 526-7373

May 2, 2013

City Of Riverbank Community Development Department
Attention: Pam Carder, Project Management Specialist
5300 Claus Rd Ste 1
Modesto, CA 95357-1665

RECEIVED MAY 06 2013

RE: EIR Riverbank for Army Ammunition Plant
Location: Riverbank (143 Acres)

Dear Ms. Carder:

Thank you for allowing the District to comment on this referral. Following are the recommendations from our Electrical, Irrigation and Domestic Water Divisions:

Irrigation

- Section 4.17 C of the draft EIR discusses increasing storm water discharge flows into the Oakdale Irrigation District (OID) Riverbank Lateral. The Riverbank Lateral discharges into the Modesto Irrigation District (MID) Main Canal and is subject to a 1942 agreement limiting "irrigation spill, drainage pump discharges and storm and surface water discharges" to maximum total amounts. Any increased discharge from the Riverbank Army Ammunition Plant redevelopment project to OID's Riverbank Lateral would be subject to the constraints imposed in the 1942 agreement.

Domestic Water

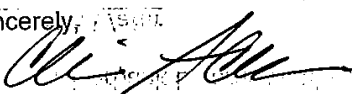
- No comments at this time.

Electrical

- The Electric Division has no objections at this time.
- MID currently has an existing electric facility adjacent to the subject area.
- If MID electric service is desired into the area, the customers should contact the District's Electric Engineering Department to determine the availability of electric service and coordinate service requirements to the proposed project.

The Modesto Irrigation District reserves its future rights to utilize its property, including its canal and electrical easements and rights-of-way, in a manner it deems necessary for the installation and maintenance of electric, irrigation, agricultural and urban drainage, domestic water and telecommunication facilities. These needs, which have not yet been determined, may consist of poles, crossarms, wires, cables, braces, insulators, transformers, service lines, open channels, pipelines, control structures and any necessary appurtenances, as may, in District's opinion, be necessary or desirable.

If you have any questions, please contact me at 526-7433.

Sincerely, 

Celia Aceves
Risk & Property Analyst

Copy: File

RA1-1

RA1-2

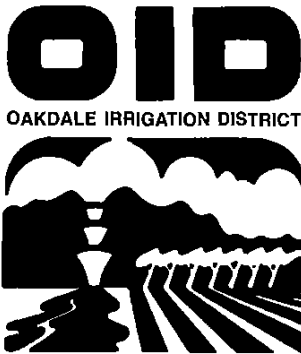
RA1-3

RA1-4

RA1-5

RA1-6

RA1-7



RECEIVED MAY 10 2013

May 9, 2013

Ms. Pam Carder
Project Management Specialist
Riverbank Local Redevelopment Authority
5300 Claus Road, Suite 1
Modesto, CA 95357

**Re: Riverbank Army Ammunition Plant Environmental Impact Report
State Clearinghouse #2011022015**

Dear Ms. Carder:

The Oakdale Irrigation District (OID) has reviewed the Riverbank Local Redevelopment Authority (RLRA) Riverbank Army Ammunition Plant (RAAP) Environmental Impact Report (EIR) and has the following comments and recommendations regarding the RAAP Specific Plan (project or EIR).

RA2-1

A letter was sent on March 8, 2011 in response to the February 2, 2011 Notice of Preparation of a Draft EIR in which a request was made that the Riverbank Lateral be fenced. Both the Land Use Concept (Figure 3-4) and the Roadway Plan (figure 3-5) of the EIR do not provide alternatives for the Riverbank Lateral as show on Figure 3-7, Potential OID Realignment. OID restates the request to fence the Riverbank Lateral.

RA2-2

The project calls for the City of Riverbank to work with OID to explore relocating the Riverbank Lateral. Relocation is possible per OID Policy although no approval has occurred to date. Pre-consultation with OID is strongly recommended during the planning phase of any specific project.

RA2-3

The OID Langstroth Drain is located on the southern edge of parcel 062-031-005. The EIR recommends that the western and southern project frontages along Claribel and Claus Road be widened to their ultimate widths with appropriate turn pockets, bicycle facilities and pedestrian amenities. Expansion of Claribel Road may require the facility be piped. If located underneath Claribel Road, it will become the maintenance responsibility of the City of Riverbank or Stanislaus County.

RA2-4

Ms. Carder
Page Two
May 9, 2013

The EIR also discusses 2 existing outlets from the from the north storm drain reservoir that discharge into the Riverbank Lateral and a smaller pump that conveys storm water from the lift station directly to the Old Riverbank Lateral. You may wish to revise the EIR as these connections were plugged and removed on February 28, 2013 and the capability of RAAP to discharge storm water into the Riverbank Lateral no longer exists.

RA2-5

Thank you for the opportunity to comment on this project. If you have any further questions or need any specific information, please don't hesitate to contact me at (209) 840-5537.

OAKDALE IRRIGATION DISTRICT

Sincerely,

A handwritten signature in black ink, appearing to read 'John B. Davids', with a large, stylized flourish at the end.

John B. Davids, P.E.
District Engineer

cc: Administration Files

Bureau of Environmental Management
525 Golden Gate Avenue, 6th Floor
San Francisco, CA 94102
T (415) 934-5700
F (415) 934-5750

May 13, 2013

Debbie Olson, Executive Director
Riverbank Local Redevelopment Authority
5300 Claus Road
Riverbank, CA 95367

Re: SFPUC Comments on Riverbank Army Ammunition Plant Draft EIR
(SCH #2011022015)

Dear Ms. Olsen:

The San Francisco Public Utilities Commission offers the following comments on the Riverbank Army Ammunition Depot Draft EIR (SCH #2011022015):

1. The City and County of San Francisco (CCSF), San Francisco Public Utilities Commission (SFPUC) owns a 100-foot-wide right of way (ROW) for the Hetch Hetchy Aqueduct and the San Joaquin Transmission Line, which bisects the Specific Plan area. The Draft EIR acknowledges this ROW and the Specific Plan does not propose development in this area. However, Figure 3-8 in the DEIR identifies the SFPUC ROW as "Buffer/ Greenway/ Open Space". Please note that any use or development of the ROW, such as for landscaped open space, a pedestrian or bicycle trail, parking, emergency access routes or road crossings, must be reviewed and approved by the SFPUC. Further, CCSF owns the ROW in fee, and SFPUC charges fair market value for its use. In addition, SFPUC places restrictions on use of the ROW in order to protect utility infrastructure and insure that it is accessible for maintenance. SFPUC ROW use requirements are attached (Attachment 1).
2. In addition, please note that the land use rights associated with the Army's entry road, which crosses the SFPUC ROW, should be investigated to determine whether this use is covered by an easement. If not, use of this crossing would require review by the SFPUC and, if approved, would be subject to a revocable license from the SFPUC.

RA3-1

RA3-2

Edwin M. Lee
Mayor

Art Torres
President

Vince Courtney
Vice President

Ann Moller Caen
Commissioner

Francesca Vietor
Commissioner

RA3-3 **Anson Moran**
Commissioner

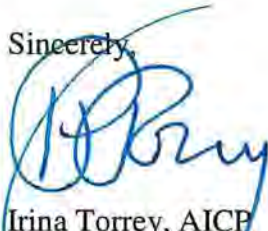
Harlan L. Kelly, Jr.
General Manager

3. In 2011 URS, a consultant to SFPUC, reviewed existing environmental documents that addressed the RAAP Superfund site to evaluate any potential impacts to SFPUC's right of way property from activities at the RAAP. As detailed in the attached letter report, "Request for Additional Characterization of the San Francisco Hetch Hetchy Water and Power Division Property Associated with the Riverbank Army Ammunition Plant Superfund Site", which we submit as an element of this comment (Attachment 2), soils in the SFPUC right of way may be contaminated due to the presence of a Transite (asbestos cement) pipe, a past leak in the Transite waste sewer line, leaks in a stormwater line, and overflows from stormwater retention ponds adjacent to the right of way. Additional sampling of soils in the right of way was recommended, and it also was recommended that the Transite pipeline be removed rather than abandoned in place. SFPUC is not aware if these actions were ever carried out. If contaminated soils or other hazardous materials are present, this could pose risks to utility workers in the right of way.

RA3-4

Thank you for providing SFPUC with the opportunity to comment.

Sincerely,



Irina Torrey, AICP
Bureau Manager, Bureau of Environmental Management

Attachments:

- 1) SFPUC Pipeline Right of Way Requirements
- 2) *Request for Additional Characterization of the San Francisco Hetch Hetchy Water and Power Division Property Associated with the Riverbank Army Ammunition Plant Superfund Site*. Prepared by URS Corporation for SFPUC. October 5, 2011.

cc. Rosanna Russell, Real Estate, SFPUC
Tim Ramirez, Natural Resources Land Management Division, SFPUC
Sarah Jones, CCSF Planning Dept., Environmental Planning Division

San Francisco Public Utilities Commission
Pipeline Right of Way Requirements

RA3-5

- *Utilities*

- o No utility may be installed along, rather than across, the Right of Way. Only perpendicular crossings are permitted.
- o No aerial utility crossing over the Right of Way is permitted except in city streets.

RA3-6

- *Land Use, Structures, and Accessibility*

- o *Structures on the Right of Way are strictly prohibited.* No one shall construct or place any temporary or permanent structure or improvement in, on, under or about the Right of Way. For the SFPUC's purposes, asphalt, concrete and cementitious concrete driveways, sidewalks and parking areas, and fences are deemed "improvements," and are subject to SFPUC review and approval.
- o No use is permitted that would restrict access to Right of Way at any time by SFPUC staff, construction equipment or vehicles. This means that structures on adjacent property must be setback at least 10 feet from the Right of Way.
- o An adjacent property owner or tenant may not use the Right of Way fulfill its open space, setback, emergency access or other development requirements.
- o Any use where the Right of Way would provide an adjacent owner, tenant or licensee with its sole emergency access to the tenant or licensee's property is prohibited.
- o No use that would cause ponding on the Right of Way is permitted.
- o Any use that cannot effectively be displaced in a timely manner upon the SFPUC's request is disfavored.
- o Any use that may contaminate with hazardous materials the soils, water or natural habitat of SFPUC property is prohibited.

RA3-7

Edwin M. Lee
Mayor

Art Torres
President

Vince Courtney
Vice President

Ann Moller Caen
Commissioner

Francesca Viotor
Commissioner

Anson Moran
Commissioner

Harlan L. Kelly, Jr.
General Manager



- o Any use that would increase the SFPUC's potential liability or diminish its security is disfavored.
- o Any use inconsistent with any existing or future policies adopted by the SFPUC, as they may be amended or modified from time to time, is disfavored.

**RA3-7
cont.**

- *Restoration*

The SFPUC is not responsible for restoring or replacing any vegetation or improvement on the Right of Way damaged or demolished so that the SFPUC may access, maintain or repair its pipelines. The SFPUC will restore the ground with soil compacted to SFPUC standards. The vegetation or improvement owner is responsible any additional work or the restoration.

RA3-8

- *Vegetation*

No trees or large shrubs may be planted within the Right of Way. Other vegetation may only be installed with the SFPUC's prior written consent. For a list of plants that may be permitted in the Right of Way, please refer to SFPUC Integrated Vegetation Management Policy Section 13.005 at <http://www.sfwater.org/index.aspx?page=431>. The tenant or licensee is responsible for vegetation maintenance and removal.

RA3-9

- *Right of Way Loading Restrictions*

The maximum loading on the Right of Way should not exceed traffic loading HS-20 on the paved surfaces when the pipeline has a minimum four-foot cover. Overburdened or additional live or dead loads such as load-bearing footings, pole foundations, or large boulders within the influence line of the pipe trench is prohibited.

RA3-10

- *Right of Way Cover Requirements*

To prevent damage to the PUC's underground pipelines, an adjacent owner or tenant's use of vehicles and equipment within twenty feet (20') of each side of the centerline of the PUC's pipelines (measured on the surface) are subject to the restrictions stated in Exhibit B.

RA3-11



October 5, 2011

Mr. Lewis Mitani
Site Manager
Superfund Division
United States Environmental Protection Agency
75 Hawthorne Street
Mail Code SFD-8-3
San Francisco, California 94105

Subject: Request for Additional Characterization of the San Francisco Hetch Hetchy Water and Power Division Property Associated with the Riverbank Army Ammunition Plant Superfund Site

Dear Mr. Mitani:

URS was tasked with reviewing existing environmental documents to assess potential impacts to the San Francisco Public Utilities Commission (SFPUC) Hetch Hetchy Water and Power Division (HHWP) property, located on the Riverbank Army Ammunition Plant (RBAAP) Superfund Site. The HHWP utility currently bisects the northern portion the RBAAP site. In 1952, the City and County of San Francisco issued a permit to the U.S. Army to occupy and use the HHWP property crossing the RBAAP property.

RA3-12

To evaluate any potential impacts to the HHWP property from activities at the RBAAP site, URS reviewed the following documents provided by the SFPUC:

- Site Investigation Report Riverbank Army Ammunition Plant Riverbank, California, March 2008 (CH2MHill, 2008);
- Environmental Condition of Property Phase I Report Riverbank Army Ammunition Plant, Riverbank, California, November 17, 2006 (CH2MHILL, 2006); and
- Second Five Year Review Report Final Riverbank Army Ammunition Plant, City of Riverbank Stanislaus County California, September 2006 (U.S. Army, 2006).

RA3-13

Based on a review of these documents, three areas of concern were identified associated with the HHWP property where it bisects the RBAAP property:

1. Site RBAAP-04/SWMU-12: A process waste sewer line made of Transite (asbestos cement) material crosses the HHWP property. Historically, there was a break in this line that released untreated process wastewater onto the HHWP property. Additionally, the Transite pipe material itself is hazardous if disturbed.
2. Site RBAAP-09/SWMU 20: A stormwater line servicing the RBAAP stormwater system crosses HHWP property to connect to the stormwater retention ponds. Leaks in the stormwater line where it crosses HHWP property may have resulted in contamination of soil on HHWP property.
3. Site RBAAP-09/SWMU 20: The stormwater retention ponds located directly adjacent to the HHWP property have historically overflowed. These overflows may have resulted in contamination of soil on the HHWP property.

**RA3-13
cont.**

Site RBAAP-04: Process Waste Sewer Line

In 1972, a break occurred in the effluent sewer line that transported wastewater from the wastewater treatment plant to the facility evaporation percolation ponds, located off site adjacent to the Stanislaus River. The break was at the intersection of the HHWP property. According to available information, this break was not discovered for 7 days, and an estimated 1 million gallons per day of wastewater were being discharged through the pipe at this time. An unknown volume of wastewater was released, sufficient to cause pooling at the ground surface (CH2MHILL 2006). Additionally, SFPUC understands that the sewer line was video surveyed, and that additional breaks in the line were observed as reported in the Nor Cal Pipeline Services Sewer Report, Project Name: Riverbank Army Ammunition Plant October 2009 (Nor Cal, 2009).

According to the 2006 Phase I Report, an investigation was completed in the vicinity of the pipe leak during the Confirmatory Phase of the Contamination Survey. This investigation included collection of four soil sample cores in the vicinity of the pipe break, and one background sample. Samples were only analyzed for California Title 22 Metals, and results indicated only chromium, copper, and fluoride were present at concentrations close to or greater than three times background (CH2MHILL 2006). Therefore, the Feasibility Study recommended no further action in this area.

RA3-14

Because multiple contaminants of concern (COCs) associated with the RBAAP facility could have been present in the water in the effluent sewer line, it would be appropriate to collect samples for analysis beyond Title 22 Metals. Other contaminants associated with the site include: hexavalent chromium, volatile organic compounds (VOCs), total petroleum

hydrocarbons (TPH), cyanide, and polychlorinated biphenyls (PCBs). VOCs would be less likely to persist in shallow soils, because the spill occurred in the 1970s. However, PCBs, TPH, hexavalent chromium, and cyanide could have been present in wastewater, and would be reasonably expected to be present in shallow soil in the vicinity of the break. Some of these COCs were sampled during the Remedial Investigation (RI) at other sewer-related sites at the RBAAP, but not at the sewer line break location.

**RA3-14
cont.**

URS recommends that additional samples be collected at the location of any breaks in the line, and sampled for these COCs. A review of the line video survey should be conducted to identify any breaks on or near the HHWP property. If new breaks on or adjacent to the HHWP property are observed in the video surveys, then additional sampling should be conducted in these areas as well. Additionally, because the Transite pipe represents a hazard to future water utility workers if left in place, the pipe should be removed when it is no longer in use, rather than abandoned in place.

Site RBAAP-09/SWMU 20: Storm Discharge Lines

Although no specific release from a break in the stormwater discharge lines has been documented in the reports reviewed, the discharge line crosses the HHWP to connect to the stormwater retention ponds. Based on the Nor Cal Pipeline Services Sewer Report, SFPUC understands that this line was video surveyed and that breaks may have been observed (Nor Cal, 2009). A review of the line video survey should be conducted to identify any breaks on the HHWP property. If any breaks in this line are present on or adjacent to the HHWP property, soil samples should be collected at and below the depth of the line and analyzed for Title 22 Metals, PCBs, TPH, hexavalent chromium, and cyanide. These contaminants are all COCs at the site, and could be present in any stormwater runoff transferred through this line.

RA3-15

Site RBAAP-09/SWMU 20: Stormwater Retention Ponds

The Northwest Storm Reservoir is located adjacent to the Hetch Hetchy aqueduct on the HHWP property. Historically, this reservoir has overflowed in heavy rains. In 1974, the Army Environmental Hygiene Agency reported a sample collected from water in the Storm Reservoir had results showing elevated concentrations of selected heavy metals (CH2MHILL 2006).

RA3-16

During Phase I of the RI at the site, two sediment samples were collected from the reservoir and analyzed for total and hexavalent chromium, total and free cyanide, 1,1-dichloroethylene, and the organic persistent and bioaccumulative toxic substances listed in California Title 22 California Code of Regulations. The analytical results documented total chromium at levels greater than

three times background. Although it was determined that the reservoir was not a significant source of groundwater contamination, the potential shallow soil contamination was not considered (CH2MHILL 2006).

Because elevated concentrations of heavy metals have been detected in both water and sediment present in the stormwater reservoir, contaminants could potentially have migrated to the HHWP soils during an overflow. Although potential soil contamination from stormwater overflow is not likely to be a source of groundwater contamination, it would result in contaminated soil on the HHWP property. Therefore, samples should be collected on the HHWP property in the vicinity of the stormwater reservoir to confirm that contamination is not present. Sample analysis should include Title 22 Metals, hexavalent chromium, PCBs, and cyanide.

RA3-16
cont.

Regulatory and Guidance Information

The RBAAP site investigation was performed under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Public Law (PL) 96-510 as amended by Superfund Amendment and Reauthorization Act (SARA) (PL 99-499) and the Community Environmental Response Facilitation Act (CERFA) PL 102-42. Title 40 environmental regulations and U.S. EPA guidance documents guided the environmental investigation, remedy selection, and Record of Decision (ROD). In addition, the 2006 Phase I ESA was a component of the Environmental Baseline Survey (EBS) performed under Department of Defense policy to support a future Finding of Suitability of Transfer (FOST). It appears that the data gaps identified in this letter are covered by the following regulations and guidance:

RA3-17

1) **CERCLA Site Investigation:** The site investigation generally followed the 1988 U.S. EPA Remedial Investigation / Feasibility Study (RI/FS) Guidance (EPA/540/G-89/004); however, it appears that the selection of COCs for sites RBAAP-04 and RBAAP-09 did not include all the known wastes stored and released in those areas as required in the guidance. The liquid wastes released in these areas should have been investigated for all applicable COCs including hexavalent chromium, VOCs, TPH, cyanide, and PCBs. The incomplete COC selection created a data gap that propagated into the risk assessment and remedy selection stages of the CERCLA process.

RA3-18

2) **Remedy Selection:** The remedy selection and ROD for this site generally followed the 1999 U.S. EPA Guide to Preparing Superfund Proposed Plans, Records Of Decision, And Other Remedy Selection Decision Documents Guidance (EPA 540-R-98-031); however, it appears that the data gap from the missing COCs for sites RBAAP-04 and RBAAP-09 carried through from the site investigation phase to the risk assessment and remedy

RA3-19

selection phase. The evaluation of the nine criteria could not take into account the potential COCs at sites RBAAP-04 and RBAAP-09 because no information was available regarding the presence of all the potential COCs. Following U.S. EPA guidance any minor changes to the remedy required by new information could be documented in the Administrative Record and/or a future ROD Amendment.

RA3-19
cont.

- 3) **Five-Year Review:** The 2006 Second Five Year Review Report Riverbank Army Ammunition Plant prepared by AHTNA generally followed the U.S. EPA 2001 Comprehensive Five-Year Review Guidance (EPA 540-R-01-007); however, the COC data gaps for sites RBAAP-04 and RBAAP-09 were not identified in the review. The U.S. EPA concurred with the U.S. Army that the remedy was protective of human health and the environment; however, the Five-Year Review discussed future implementation of Institutional Controls at the site and continuing RCRA closure for the Industrial Wastewater Collection System. It appears that the COC data gaps for sites RBAAP-04 and RBAAP-09, and the potential presence of utility worker risk from COCs and from the buried Transite pipe should be addressed in the Institutional Controls and RCRA closure that are currently in progress. If additional data are collected as requested in this letter the results could be appended to the Administrative Record and/or included in a future ROD amendment depending on whether the findings are significant. In addition, the management in place of the buried Transite pipe addressed through Institutional Controls or RCRA closure should be documented in the administrative record and/or in a future ROD amendment, as required.

RA3-20

- 4) **Property Transfer:** The potential presence of COCs that were not sampled for at the three locations identified above and the presence of the Transite pipe are covered under CERCLA 120(h) (as amended) which requires that the government certify that "all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken before the date of such transfer."

RA3-21

- 5) **Environmental Baseline Survey:** The general requirement in CERCLA 120(h) is defined in more detail in DOD policy, in 40 CFR 373, and in ASTM Method D6008-96(2005) "Standard Practice for Conducting Environmental Baseline Surveys." The 2006 Phase I ESA prepared by CH2M Hill generally followed ASTM D6008-96 (2005); however, although this standard explicitly calls for a detailed review of records associated with spills (Section 7.3.1) and contamination from runoff (7.3.19) the COC data gaps for sites RBAAP-04 and RBAAP-09 were not identified. Under the ASTM

RA3-22

D6008-96 (2005) standard "if current records are incomplete regarding the nature and extent of contaminant sources, the user or environmental professional will note the strategy for completing relevant records." Since the COC data gaps in RBAAP-04 and RBAAP-09 were not identified or addressed it appears that the 2006 Phase I ESA overlooked the potential COCs in these areas.

RA3-22
cont.

Recommendations

In summary, URS recommends that additional sampling be conducted in the three areas of concern described above to determine if soil on the HHWP property has been impacted. Additionally, URS recommends that the video survey of the wastewater and stormwater lines be reviewed to target sampling around any breaks on—or in the vicinity of—the HHWP property. Samples should be analyzed for COCs, including Title 22 Metals, hexavalent chromium, PCBs, and cyanide. Lastly, the disposition of the Transite wastewater line after it is no longer in use should be addressed to mitigate risks to future utility workers. The responsibility for addressing the risks from the pipe should be with the U.S. Army, rather than the HHWP.

RA3-23

Please contact me at 415-243-3783, or at giorgio.molinario@urs.com, should you have any questions or require any clarification.

RA3-24

Sincerely,

URS CORPORATION



Iain Baker, REA, CHMM
Project Manager



Giorgio Molinario, REA
Senior Environmental Chemist

cc: Peter Dean, San Francisco Public Utilities Commission

COMMENT LETTER # RA4



Stanislaus Consolidated
Fire Protection
District
3324 Topeka Street
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May 17, 2013

RECEIVED MAY 20 2013

Pam Carder
Project Management Specialist
Riverbank Local Redevelopment Authority
5300 Claus Road, Suite 1
Modesto, CA 95357

Dear Ms. Carder:

Stanislaus Consolidated Fire Protection District (SCFPD) has reviewed the "Draft Environmental Impact Report (EIR) Riverbank Local Redevelopment Authority Specific Plan for Riverbank Army Ammunition Plant" and wishes to have the following comments included:

1. The formation of Community Services Districts and an improvement to SCFPD Development Fees needed to fund the anticipated staffing and capital assets is referenced in the Draft EIR but should be included as a mitigation measure with identifiable benchmarks.
2. For ALL mitigation measures, benchmarks shall be identified prior to the adoption of the EIR, which will trigger the implementation of said measures.

RA4-1

RA4-2

RA4-3

If you have any questions, please feel free to contact me at (209) 869-7470.

Sincerely,

S. Koelmans

Shirley Koelmans
Fire Inspector

Brian M. Kelly

Brian M. Kelly
Fire Chief, Interim

COMMENT LETTER # RA5



CHIEF EXECUTIVE OFFICE

Monica Nino
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Assistant Executive Officer

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Assistant Executive Officer

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STANISLAUS COUNTY ENVIRONMENTAL REVIEW COMMITTEE

May 20, 2013

Pam Carder
Riverbank Local Redevelopment Authority
5300 Claus Road, Suite 1
Modesto, CA 95357

**SUBJECT: ENVIRONMENTAL REFERRAL – RIVERBANK LOCAL REDEVELOPMENT
AUTHORITY – SPECIFIC PLAN FOR RIVERBANK ARMY AMMUNITION
PLANT**

Ms. Carder:

The Stanislaus County Environmental Review Committee (ERC) has reviewed the subject project and has determined that it may have a significant effect on the environment.

The following comments/conditions are submitted by the Department of Public Works, Senior Land Development Coordinator:

- The County's Public Works Transit Division currently operates transit service in the City of Riverbank and plans to implement Dial-A-Ride (DAR) service in the City of Riverbank beginning August 5, 2013. As a result of the service improvements planned for 2013, the service boundary for the DAR service in the City has been extended from Claus Road to Eleanor Avenue and to Montgomery Rd. The Transit Division is recommending that any future and potential transit stops to be located along both Claus and Claribel Roads should be coordinated with the Transit Division to ensure it may provide input on the location of these amenities.
- Mitigation measures state that each development shall pay its fair share for both the Claribel at Coffee and Claribel at Roselle intersections for left turn pockets. Developments may require direct mitigation prior to any future widening project, therefore, each development shall be responsible for direct mitigation including, but not limited to, the construction of right turn lanes, additional through lanes, and increased corner radiuses for larger vehicles.

RA5-1

RA5-2

RA5-3

**ENVIRONMENTAL REFERRAL – RIVERBANK LOCAL REDEVELOPMENT
AUTHORITY – SPECIFIC PLAN FOR RIVERBANK ARMY AMMUNITION
Page 2**

These mitigations and fair share contributions should not be limited to the intersections of Claribel at Coffee and Claribel at Roselle intersections.

- The EIR should not consider the North County Corridor in its baseline condition as a route has not yet been adopted. Upon adoption, the Specific Plan should be revised with the updated traffic model.
- Road widening of Claribel Road and Claus Road are mentioned in the summary but not considered in the mitigation measures. Please include this as part of the mitigation measures.
- Measure Trans-3 states "Future developers within the RAAP area shall contribute their fair share towards improvements at the intersections identified above." Table 4.16-9 shows Claribel at Coffee and Claribel at Roselle intersections while the intent of Trans-3 is for the intersections of Atchison Street (State Route 108) at 1st Street, State Route 108 at Claus Road and State Route 108 at Patterson Road. This should be clearly identified in the mitigation measures.
- In addition, Measure TRANS-5 and Measure TRANS-1 are conflicting measures for the intersection at Claribel and Coffee. Please provide clarifying information to Angie Halverson, Senior Land Development Coordinator with the Department of Public Works.

RA5-3
cont.

RA5-4

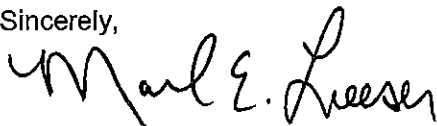
RA5-5

RA5-6

RA5-7

The ERC appreciates the opportunity to comment on this project.

Sincerely,



Mark E. Loeser
Management Consultant
Environmental Review Committee

MEL:ss

cc: ERC Members



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



May 20, 2013

Pam Carder, Project Management Specialist
Riverbank Local Redevelopment Authority
5300 Claus Road, Suite 1
Modesto, CA 95357

Project: Specific Plan for Riverbank Army Ammunition Plant

District Reference No: 20130321

Dear Ms. Carder:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Specific Plan and Draft Environmental Impact Report (EIR) for the Riverbank Army Ammunition Plant (RAAP) project. The project includes the development of a 146-acre project site with up to 119,058 sf new commercial/retail space, 1,411,542 sf of industrial space (673,625 sf existing, 737,917 sf new), and 116,637 sf of new office/research and development space.

RA6-1

As discussed in the EIR, the Specific Plan is a program level project and should include a discussion of policies, which when implemented, will reduce or mitigate impacts on air quality at the individual project level. To aid the City of Riverbank in addressing project specific issues at the program level and review the feasibility of all potential mitigation measures, the District offers the following comments and recommendations.

Criteria Pollutant Emissions

1. Mitigation Measures AQ-1a and AQ-2 have been incorporated into the project to reduce potential impacts from construction and operational activities associated with the buildout of the Specific Plan. The discussions in the EIR and the mitigation measures indicate that all future projects within the RAAP will require additional emissions analysis and will be mitigated in accordance with District Rule 9510 (Indirect Source Review). However, the mitigation measures as written are unclear as to whether they are meant to: (1) ensure that future development project will be compliant with CEQA requirements, (2) ensure that all future development projects would comply with District Rule 9510 (Indirect Source Review) requirements, or (3)

RA6-2

Seyed Sadredin

Executive Director/Air Pollution Control Officer

Northern Region

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Central Region (Main Office)

1990 E. Gettysburg Avenue

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Southern Region

34946 Flyover Court

Bakersfield, CA 93308-9725

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ensure compliance with both CEQA and District Rule 9510. The District recommends that discussions in the EIR and Mitigation Measure AQ-1a and AQ-2 be amended, or new measures added, to clarify the intent of each measure and to identify how the measures will be made enforceable by the City of Riverbank. The District offers the following recommendations:

RA6-2
cont.

1a) *If the intent of the mitigation measure is to ensure compliance with CEQA requirements:* Table 5-1 of the Specific Plan identifies allowed uses within the various development districts within the RAAP plan area. Some of these uses appear to be allowed by right (ministerial approvals only), while others would require additional conditions or the issuance of a use permit (discretionary approvals). As CCR§ 15268 exempts ministerial projects from CEQA requirements, it is unclear whether the City will require additional analysis of construction and operational emissions for all projects within the RAAP plan area, or whether these requirement will be only for projects requiring additional conditions or use permits. It is also unclear whether the City will require project-level developments to mitigate impacts on air quality to less than significant. The District recommends that the discussions on construction and operational related impacts and Mitigation Measure AQ-1a and AQ-2 be amended to clarify: which projects, if any, would be considered ministerial approvals and which would require additional review; whether projects must mitigate to less-than-significant; and the actions the City will take to enforce the required mitigation.

RA6-3

1b) *If the intent of the mitigation measure is to ensure compliance with District Rule 9510:* As previously discussed, Table 5-1 identifies allowed uses within the various development districts within the RAAP plan area, some of which appear to be allowed uses by right with no further CEQA analysis required. As such, approval of the RAAP Specific Plan may constitute the final discretionary approval by the City of Riverbank for some uses identified in Table 5-1. The District recommends that the mitigation measures be amended to include a requirement for all applicants within the RAAP plan area, including those projects allowed by right, to demonstrate to the City compliance with Rule 9510 prior to issuance of the first building and/or grading permits as a condition of project approval.

RA6-4

1c) *If the intent of the mitigation measures are to ensure compliance with both CEQA and District Rule 9510 requirements:* The District recommends that the measures be amended to include all District recommendations discussed above.

RA6-5

2. For project emissions that would be significant and unavoidable, the District recommends the environmental document be revised to include a discussion of the feasibility of implementing a voluntary emission reduction agreement (VERA) to mitigate project specific impacts to less than significant levels. A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of

RA6-6

administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds for the District's Emission Reduction Incentive Program (ERIP). The funds are disbursed by ERIP in the form of grants for projects that achieve emission reductions. Thus, project specific impacts on air quality can be fully mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of old farm tractors.

The District has been developing and implementing VERA contracts with project developers to mitigate project specific emissions since 2005. It is the District's experience that implementation of a VERA is a feasible mitigation measure, and effectively achieves the emission reductions required by a lead agency, by mitigating project related impacts on air quality to a net zero level by supplying real and contemporaneous emissions reductions. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the environmental document be amended to include an assessment of the feasibility of implementing a VERA.

Additional information on implementing a VERA can be obtained by contacting District CEQA staff at (559) 230-6000.

RA6-6
cont.

Health Risks

3. The DEIR includes a health risk assessment (HRA); however, it does not include an ambient air quality analysis (AAQA). The District offers the following comments and recommendations regarding the health risk discussion and analysis presented in the EIR:

RA6-7

3a) The discussion on exposure of sensitive receptors to substantial pollutant concentrations did not provide adequate information regarding the details of the HRA, nor were the details provided in the appendices to the EIR. Furthermore, the actual modeling files were not submitted to the District for review. As such, the District cannot make a determination as to the level of compliance with District policies and methodologies for performing HRA analyses.

RA6-8

3b) The only emissions modeled in the HRA were diesel particulate emission (DPM) increases on Claus Road. The District's methodology for completing an HRA for development projects is to predict risk only for emissions of toxics within the boundaries of the project site excluding emissions from public highways. Because Claus Road is a public highway outside of the project area boundaries, any increase in DPM from traffic generated by the Specific Plan would not be considered as producing a risk associated with the project.

RA6-9

3c) Buildout of the Specific Plan will result in emissions generated by diesel truck traffic from retail and industrial land uses, stationary sources used in

RA6-10

manufacturing, and from commercial uses such as restaurants, fuel dispensing operations, and dry cleaning. (It should be noted that most future dry cleaning operations will not emit perchloroethylene; however, some perchloroethylene replacements may be or may contain toxic air contaminants.) Stationary source emissions from individual developments within the Northern and Southern Caps may be subject to District permitting regulations, in which case the District would perform a Risk Management Review (RMR) and AAQA as appropriate. However, please note that the District's analyses include only those emissions that the District has statutory authority and will not include emissions generated by mobile sources. As such, more detailed analyses is needed to comply with CEQA requirements.

**RA6-10
cont.**

3d) An AAQA should be performed to ensure that Federal and State ambient air quality standards for all criteria pollutants, including nitrogen dioxide, will not be violated. Concentration predictions need to be made for receptors surrounding the project that are in ambient air and not just residential or worker sites.

RA6-11

3e) The HRA presented in the EIR is not adequate to make a determination of the significance of potential health impacts resulting from implementation of the Specific Plan and should not be considered to be a programmatic HRA. The District recommends that a program level HRA and AAQA be prepared. The District strongly recommends that the City or its consultants contact the District for more information regarding the appropriate modeling approach. More information on HRAs can be obtained by:

RA6-12

- Contacting District Technical Services staff by phone at 959) 230-6000;
- E-mailing inquiries to: hramodeler@valleyair.org; or
- Visiting the District's website at: http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

3f) Accurate quantification of health risks and operational emissions requires detailed site specific information, e.g. type of emission source, proximity of the source to sensitive receptors, and trip generation information. The required level of detail is typically not available until project specific approvals are being granted. As discussed above, it appears that allowed uses that do not require additional conditions or use permits may be exempt from additional CEQA analysis. However, some of these allowed uses may lead to increased health risks resulting from increases in diesel particulate matter and other emissions from mobile and stationary sources. Therefore, the District recommends the inclusion of a mitigation measure requiring a separate HRA and AAQA be completed for each new development project within the RAAP area, including those that would otherwise appear to be exempt from CEQA (such as those uses allowed by right as). These future analyses should include all mobile and stationary source emissions from each development. As new projects are constructed, the District recommends a cumulative analysis should be prepared to determine the total risk from the sources within the Specific Plan.

RA6-13

District Rules and Regulations

4. As discussed in the EIR, individual development projects within the scope of the RAAP Specific Plan would be subject to District Rule 9510 (Indirect Source Review) if upon full build-out of new developments, or the expansion of any existing building, the project would include or exceed any one of the following:
- 50 dwelling units
 - 2,000 square feet of commercial space;
 - 25,000 square feet of light industrial space;
 - 100,000 square feet of heavy industrial space;
 - 20,000 square feet of medical office space;
 - 39,000 square feet of general office space; or
 - 9,000 square feet of educational space; or
 - 10,000 square feet of government space; or
 - 20,000 square feet of recreational space; or
 - 9,000 square feet of space not identified above; or

RA6-14

It is important to note that all projects within the scope of the EIR exceeding the thresholds identified above will be subject to Rule 9510. As previously discussed, the adoption of the Specific Plan may constitute the final discretionary approval by the City for those allowed uses identified in Table 5-1. As such, the District strongly recommends the City contact the District's ISR staff to discuss the application process and how to adequately complete an Air Impact Assessment (AIA) Application. District ISR staff is available to meet with the City and/or its consultants to further discuss the requirements of Rule 9510. More information on District Rule 9510 can be obtained by:

- Calling the District's ISR staff at (559) 230-6000;
- E-mailing inquiries to: ISR@valleyair.org; or
- Visiting the District's website at: <http://www.valleyair.org/ISR/ISRHome.htm>.

5. Individual development projects within the scope of the RAAP Specific Plan may also be subject to the following District rules and regulations: Regulation VIII, (Fugitive PM10 Prohibitions), Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 4002 (National Emission Standards for Hazardous Air Pollutants), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

RA6-15

The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to individual projects or to obtain information about District permit requirements, project proponents are strongly encouraged to contact the District's Small Business Assistance Office at (209) 557-6446 prior to the start of

construction activities. A complete list of current District rules can be found on the District's website at: www.valleyair.org/rules/1ruleslist.htm.

RA6-15
cont.

General Comments

6. The District recommends the discussions regarding the State and Federal Ambient Air Quality Standards (AAQS) and the District's current attainment plans be updated to reflect the most current information as follows:

RA6-16

6a) The 2013 Federal Ambient Air Quality Standard for fine particulate matter (PM_{2.5}) has been reduced from 15 µg/m³ to 12 µg/m³. The District recommends that Table 4.3-2 on page 4.3-15 in the EIR be amended to reflect the current PM_{2.5} AAQS. Current attainment status and AAQS can be found on the District's website at: <http://www.valleyair.org/aqinfo/attainment.htm>.

RA6-17

6b) The District approved the 2012 PM_{2.5} Plan on December 20, 2012. The plan was then approved by the California Air Resources Board (ARB) on January 24, 2013. This plan assures the San Joaquin Valley Air Basin will comply with the Environmental Protection Agency (EPA) 2006 PM_{2.5} standard by the 2019 deadline. The District recommends that the discussion on page 4.3-21 in the EIR be amended to reflect the current status of the District's PM_{2.5} attainment plan. A copy of the District's 2012 PM_{2.5} Plan can be found on the District's website at: http://www.valleyair.org/Air_Quality_Plans/PM25Plans2012.htm.

RA6-18

7. Referral documents for future development projects with the scope of the RAAP Specific Plan should include a project summary detailing, at a minimum, the land use designation, project size, and proximity to sensitive receptors and existing emission sources, and should identify the project as being with the scope of the RAAP Specific Plan.

RA6-19

The District recommends that a copy of the District's comments be provided to the project proponent. If you have any questions or require further information, please call Jessica Willis at (559) 230-5818.

RA6-20

Sincerely,

Dave Warner
Director of Permit Services


Arnaud Marjollet
Permit Services Manager

DW:jw



City of Modesto
Community and Economic
Development Department/Planning Division
1010 Tenth Street, Third Floor
Modesto, CA 95354

May 17, 2013

Pam Carder, Project Management Specialist
Riverbank Local Redevelopment Authority
5300 Claus Road, Suite 1
Modesto, CA 95357

RE: Riverbank Army Ammunition Plant Specific Plan & EIR (PRR-11-001)

Dear Ms. Carder:

Thank you for providing the City of Modesto the opportunity to review the Army Ammunition Plant Specific Plan and Draft EIR. The City of Modesto offers the following comments:

1. The intersections of Claus / Sylvan and Claus / Plainview should be added to the set of traffic study intersections. Significant project-related traffic volumes can be expected to occur south of the project, along Claus Road; and,
2. The trip distribution of 13% of AM trips from the east on Claribel seems high, relative to the 19% of AM trips from the south on Claus. This data should be confirmed.

LA1-1

LA1-2

LA1-3

We look forward to opportunities to review additional project-related documentation as it becomes available. Should you have any questions, feel free to call me at (209) 577-5267.

Regards,

Brad Wall, AICP
Principal Planner

