

Planning for Success.

DRAFT ENVIRONMENTAL IMPACT REPORT

SALINAS UNION HIGH SCHOOL DISTRICT NEW MIDDLE SCHOOL #5 CONSTRUCTION

State Clearinghouse # 2015081022

PREPARED FOR

Salinas Union High School District

August 19, 2016

EMC PLANNING GROUP INC. A LAND USE PLANNING & DESIGN FIRM

Salinas Union High School District New Middle School #5 Construction

Draft Environmental Impact Report State Clearinghouse #2015081022

PREPARED FOR

Salinas Union High School District Karen Luna, Facilities & Planning Manager 320 Rose Street Salinas, CA 93901 Tel 831.796.7000

> PREPARED BY EMC Planning Group Inc. 301 Lighthouse Avenue, Suite C Monterey, CA 93940 Tel 831.649.1799 Fax 831.649.8399 Richard James, AICP james@emcplanning.com www.emcplanning.com

> > August 19, 2016

This document was produced on recycled paper.

TABLE OF CONTENTS

S.0) SUMMARY				
	S.1	CEQA Requirements			
	S.2	Proposed Project Summary S-1			
	S.3	Summary of Impacts and Mitigation Measures			
	S.4	Areas of Controversy			
	S.5	Summary of Alternatives			
1.0	INT	RODUCTION 1-1			
	1.1	Organization of the Report 1-1			
	1.2	Purpose and Standards 1-3			
	1.3	CEQA Process 1-4			
	1.4	Terminology 1-5			
2.0	PRC	DJECT DESCRIPTION 2-1			
	2.1	Project Location and Setting 2-1			
	2.2	Statement of Objectives			
	2.3	Project Description2-16			
	2.4	EIR Uses and Approvals2-26			
3.0	ENV	VIRONMENTAL EFFECTS 3-1			
	3.1	Aesthetics			
	3.2	Agricultural Resources 3-4			
	3.3	Air Quality			
	3.4	Biological Resources			
	3.5	Cultural Resources			
	3.6	Greenhouse Gas Emissions			
	3.7	Hazards and Hazardous Materials3-93			
	3.8	Hydrology and Water Quality3-105			
	3.9	Noise			

	3.10	Traffic	
	3.11	Effects Found Not to be Significant	
4.0	CUN	MULATIVE IMPACTS	4-1
	4.1	CEQA Requirements	4-1
	4.2	Cumulative Development Scenario	4-2
	4.3	Cumulative Impacts and the Proposed Project's Contribution	4-2
5.0	OTH	HER CEQA CONSIDERATIONS	5-1
	5.1	Growth-Inducing Impacts	5-1
	5.2	Significant Unavoidable Impacts	5-3
	5.3	Energy Demand	5-5
	5.4	Significant Irreversible Environmental Changes	5-10
6.0	ALT	TERNATIVES	6-1
	6.1	CEQA Requirements	
	6.2	Alternatives Considered	
	6.3	Comparison of Alternatives	6-16
7.0	SOU	JRCES AND REPORT PREPARERS	7-1
	7.1	Sources	
	7.2	Personal Contacts	
	7.3	Report Preparers	

Appendices

Appendix A	NOP and NOP Responses
Appendix B	Creekbridge Middle School Site Acquisition Final Initial Study, EMC Planning Group
Appendix C	Future SUHSD Middle School Offsite Improvements, RJA
Appendix D	SUHSD New Middle School GHG/AQ CalEEMod Emissions Assessment and Annual Emissions Results, EMC Planning Group
Appendix E	Habitat Assessment Report for California Tiger Salamander and California Red-Legged Frog New Middle School Project, EMC Planning Group
Appendix F	Phase I Environmental Site Assessment Proposed New School Site, Kleinfelder
Appendix G	Preliminary Environmental Assessment Proposed Creekbridge Middle School Site, Kleinfelder
Appendix H	Preliminary Stormwater Control Plan SUHSD New Middle School, Wood Rodgers
Appendix I	Salinas Union Middle School Project Environmental Noise Assessment, Illingworth & Rodkin
Appendix J	Transportation Impact Analysis Salinas New Middle School, Kimley-Horn and Associates, Inc.
Appendix K	Geologic and Seismic Hazards Assessment Report Proposed New SUHSD Middle School, Kleinfelder

Figures

Figure 1	Project Location	2-3
Figure 2	Project Site and Vicinity	2-5
Figure 3	Site Photos	2-7
Figure 4	General Plan Land Use Designations Map	2-9
Figure 5	Salinas Future Growth Area	2-11
Figure 6	Proposed Central Area Specific Plan	2-13
Figure 7	Proposed Site Plan	2-19

Figure 8	Existing Attendance Boundaries2-21
Figure 9	Offsite Improvements
Figure 10	Important Farmlands
Figure 11	TIA Study Area
Figure 12	Existing Intersection Lane Geometry and Peak Hour Volumes3-131
Figure 13	Existing Conditions Project Trip Distribution and Assignment3-143
Figure 14	Existing Plus Project Intersection Turning Movements
Figure 15	Cumulative Conditions Intersection Lane Geometry and Peak Hour Volumes4-11
Figure 16	Cumulative Conditions Project Trip Distribution and Assignment4-13
Figure 17	Cumulative Plus Project Conditions Intersection Turning
	Movements4-15
Figure 18	Alternative Site Location

Tables

Table S-1	Significant Impacts and Mitigation Measure Summary Se	-3
Table 1	Common Air Pollutants	14
Table 2	North Central Coast Air Basin Attainment Status Designations3-2	20
Table 3	Federal and State Ambient Air Quality Standards	22
Table 4	CalEEMod Operational Modeling Results (Pounds per Day)3-2	27
Table 5	Special-Status Plant Species with the Potential to Occur in the Project Vicinity	32
Table 6	Special-Status Wildlife Species with the Potential to Occur in the Project Vicinity	12
Table 7	GHG Types and Their Contribution to Global Warming3-7	76
Table 8	GHG Global Warming Potentials	77
Table 9	Unmitigated Operational plus Amortized Construction GHG Emissions (MT/year)	€1
Table 10	Applicable Legislative and Regulatory Emissions Reductions	92
Table 11	Annual GHG Emissions Reductions from Legislative and Regulatory Actions (MT CO2e/year)	€2
Table 12	Definitions of Acoustical Terms	17

Table 13	Vibration Source Levels for Construction Equipment 3-121
Table 14	Typical Ranges of Construction Noise Levels at 50 Feet 3-125
Table 15	Construction Equipment Noise Emission Levels at 50 Feet
Table 16	Existing Conditions Intersection Level of Service Summary
Table 17	Assessment Area Intersections
Table 18	Project Trip Generation
Table 19	Existing Plus Project Conditions Intersection Level of Services 3-142
Table 20	Cumulative Plus Project Conditions Intersection Level of Service4-9
Table 21	Project Alternatives Summary

S.0 Summary

S.I CEQA REQUIREMENTS

CEQA Guidelines section 15123 requires an EIR to contain a brief summary of the proposed project and its consequences. The summary identifies each significant effect and the proposed mitigation measures and alternatives to reduce or avoid that effect; areas of controversy known to the lead agency; and issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

S.2 PROPOSED PROJECT SUMMARY

The full description of the location, environmental setting, and project description are included in Section 2.0 Project Description.

Location and Setting

The 18-acre project site is located northeast of the corner of Boronda Road and Natividad Road in the City of Salinas ("City") within the County of Monterey ("County"). The project site includes portions of assessor's parcel numbers 153-091-006 and 153-091-007.

Project Description

The Salinas Union High School District is proposing the construction and operation of a new middle school approximately 1,500 feet northeast of the intersection of Hemingway Drive and Boronda Road, north of the City limits of Salinas ("proposed project" or "project"). The new middle school would accommodate between 800 and 1,000 seventh and eighth grade students. The new middle school is anticipated to have a range of 40-50 employees based on the school district's classroom loading and target student population numbers.

The middle school is expected to have approximately 29 standard classrooms, 12 special use rooms, six science classrooms, administration building, gymnasium, multi-use building with kitchen, media center with computer lab, locker room, courtyard, and restrooms, totaling approximately 75,750 square feet. Outdoor areas are expected to include sports fields (soccer, football, baseball and softball), basketball courts, an all-weather track, parking lots and drop-off area, and a storage area for bicycles and skateboards. Project design will include construction of on-site landscaping and storm water management facilities such as a retention pond, swales, and plantings.

Planning Designations

The project site is designated as Residential Medium Density, Public/Semi Public, Open Space and Mixed Use by the *City of Salinas 2002 General Plan* ("General Plan"). Surrounding areas are designated for residential, mixed use and open space. The project site and the surrounding area is located within the City of Salinas' Future Growth Area (Future Growth Area), as designated by the General Plan, and is currently zoned by the City as New Urbanism Interim.

The project site is located within the proposed Central Area Specific Plan ("Specific Plan"). The site is identified within the proposed specific plan as "7-8 Middle School, 18 Net Acres" and is zoned as Public Semi-Public. The proposed Specific Plan currently indicates that land uses to the west of the project site would be zoned Village Center, allowing for multi-family and cottage-style residential, retail, and office land uses. Areas to the south north and east are zoned for neighborhood uses. The Specific Plan proposes to locate a new library to the southwest of the project site, and parkland is located across the street from the northeastern corner of the project site.

S.3 SUMMARY OF IMPACTS AND MITIGATION MEASURES

This draft EIR identifies significant or potentially significant environmental impacts in several areas as identified below. The impacts are presented in a summarized format in Table S-1, Significant Impacts and Mitigation Measure Summary, with the full text of mitigation measures. The full text of the environmental setting, project analysis, and impacts and the mitigation measures can be found in Section 3.0.

Area of Concern	Significant Impact	Mitigation Number	Mitigation Measure Summary	Residual Impact
Aesthetics	Substantially degrade the existing visual character or quality	NA	There are no mitigation measures that would lessen the impact.	Significant and Unavoidable
Aesthetics	Substantial light or glare	AES-1	Require preparation of a lighting plan to reduce potential light impacts from the site.	Less than Significant
Agricultural Resources	Conversion of Farmland	AG-1	Payment of mitigation fee to Monterey County Office of Agricultural Commissioner.	Significant and Unavoidable
Agricultural Resources	Conflict with adjacent Agricultural Operations	AG-1	Create barriers between site and existing agricultural operations.	Less than Significant
Air Quality	Dust Creation	AQ-1	Implement dust emission control measures.	Less than Significant
Air Quality	Construction Emissions	AQ-2	Implement construction emissions reduction measures.	Less than Significant
Biological Resources	Jurisdictional Waters	BIO-1	To assess whether the on-site ditch is jurisdictional, the school district will retain a qualified biologist/wetland regulatory specialist to initiate informal discussions with the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (regional board), and California Department of Fish and Wildlife (CDFW) for this purpose.	Less than Significant

Area of Concern	Significant Impact	Mitigation Number	Mitigation Measure Summary	Residual Impact
Biological Resources	Impacts to Special-Status Plants	BIO-2	To protect the special-status plant species with potential to occur in proposed project impact areas, the absence of Congdon's tarplant was confirmed through an August 9, 2016 focused plant survey in all non-native grassland and ruderal (weedy) habitats in proposed project impact areas. However, if construction occurs more than five years after this survey date, to ensure that the annual disturbance- tolerant species has not established in proposed impact areas, the focused plant survey shall be repeated during the peak blooming period for this species prior to construction activities.	Less than Significant
Biological Resources	Impacts to Nesting Birds	BIO-3	If construction occurs during the bird nesting season (February 1 through September 15), a qualified biologist will conduct a pre-construction survey for nesting birds to ensure that no nests would be disturbed during project construction.	Less than Significant
Biological Resources	Impacts to CRLF and CTS	BIO-4	To avoid possible impacts to CRLF and CTS, initial site clearing and grading shall be conducted and completed only during the dry season, which typically extends from April 15 to November 15.	Less than Significant
Cultural Resources	Damage to archeological resources	CR-1	If archaeological resources or human remains are accidentally discovered during construction, work shall be halted within 50 meters (165 feet) of the find until it can be evaluated by a qualified professional archaeologist.	Less than Significant

Area of Concern	Significant Impact	Mitigation	Mitigation Measure Summary	Residual
		Number		Impact
Cultural Resources	Damage to	CR-2	In the event that any previously undiscovered	Less than
	paleontological resources		paleontological resources are discovered, all work shall be	Significant
			halted within 50 meters (165 feet) of the find, and a	
			qualified paleontologist retained to examine the find and	
			make appropriate recommendations, including, if	
			necessary, feasible mitigation measures to reduce impacts	
			to a less than significant level.	
Cultural Resources	Disturbance of human	CR-3	If human remains are found during construction there shall	Less than
	remains		be no further excavation or disturbance of the site or any	Significant
			nearby area reasonably suspected to overlie adjacent	
			human remains until the coroner of Monterey County is	
			contacted to determine that no investigation of the cause of	
			death is required	
Hydrology and	Violation of water quality	HYD-1	All recommendations from the project's Preliminary	Less than
Water Quality	standards/waste		Stormwater Control Plan prepared by Wood Rodgers, Inc.	Significant
	discharge requirements		(November 2015) shall be incorporated into a final	
			stormwater control plan for the project.	
Hydrology and	Substantially deplete	HYD-2	Project plans shall provide evidence of a 20 percent reduced	Significant
Water Quality	groundwater supplies		water demand for the project site compared to a business as	and
			usual water demand for a middle school of similar size.	Unavoidable

Area of Concern	Significant Impact	Mitigation Number	Mitigation Measure Summary	Residual Impact
Traffic	Contribute to traffic resulting in conflicts with applicable plans and policies establishing measures of effectiveness for the performance of the circulation system at a project level	T-1	Prior to opening the school, the school district shall, in conjunction with the City of Salinas, optimize the coordinated cycle lengths along East Boronda Road to 133 second cycles.	Less than Significant
Traffic	Potentially increase hazards due to design features.	T-2	Prior to the commencement of the school opening on the site, the T-intersection immediately south of intersection #5 in the project's Traffic Impact Assessment on AJ Street shall have an all-way stop sign installed.	Less than Significant
Traffic	Contribute to cumulative traffic impacts.	CT-1	The school district shall, in conjunction with the City of Salinas, optimize the coordinated cycle lengths along East Borronda Road to 129 second cycles. The intersection of Natividad Road and East Boronda Road is coordinated with adjacent signals through InSync wiring, as indicated by the City.	Less than Significant

Source: EMC Planning Group Inc. 2016.

Significant Project Impacts

Project-level significant impacts are anticipated in the following areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Hydrology and Water Quality
- Transportation and Traffic

Significant Cumulative Effects

Significant cumulative impacts are anticipated in the following areas:

- Aesthetics (Change in Visual Character)
- Agricultural Resources (Loss/Conversion of Farmland)
- Hydrology and Water Quality (Groundwater Supply)

Significant Unavoidable Impacts

Significant and unavoidable impacts are anticipated in the following areas:

Project Level:

- Aesthetics (Change in Visual Character)
- Agricultural Resources (Loss/Conversion of Farmland)

Growth Inducing Effects

Approval of the proposed project would not represent the first decision to plan for extending urban development into this non-urbanized area. Development of the project site represents a logical expansion of City growth consistent with the Future Growth Area identified in the General Plan. Development of the site may be a precedent for future growth in the undeveloped areas surrounding the site. However, these areas are also in the Future Growth Area and within the Specific Plan area and have been identified for future development. Development of the site would not induce growth in areas not already anticipated for development. Furthermore, the proposed project would not induce substantial population growth by proposing new homes and the extension of roads and infrastructure to the project site have already been planned for the project area and would most likely proceed even without implementation of the proposed project.

S.4 AREAS OF CONTROVERSY

CEQA Guidelines section 15123(b)(2) requires an EIR summary to identify areas of controversy known to the lead agency including issues raised by agencies and the public. The loss and/or conversion of farmland in Monterey County is a known controversial issues, as identified below. Additionally, the following issues were raised by other agencies. Letters are included in Appendix A, Notice of Preparation and Responses. They are briefly summarized as follows:

- Monterey County Resource Management Agency: The Resource Management Agency requested the project's EIR considering potential growth inducing impacts of the proposed project and that an alternative site be considered as a project alternative to the proposed project site. The Resource Management Agency requested the EIR detail planned construction of residential, commercial, and public spaces surrounding the project site. The Resource Management Agency also requested the EIR clarify the existing land use designations and zoning and planned land use designations and zoning for the project site.
- Monterey-Salinas Transit: Monterey-Salinas Transit requested the EIR clarify the number of facility staff associated with the proposed project and to consider Safe Routes to School components as they related to the proposed project in the EIR.
- Monterey County Agricultural Commissioner: The Monterey County Agricultural Commissioner expressed concern with the loss of farmland associated with the proposed project site and the potential impacts to agricultural operations surrounding the project site. The County Agricultural Commissioner also requested a site-specific alternative location be included in the EIR's alternatives analysis.
- City of Salinas Community Development Department: The City of Salinas provided various comments regarding potential environmental impacts of the proposed project and provided corrections for terminology to be used in the EIR.

 Northern Salinas Valley Mosquito Abatement District: The Northern Salinas Valley Mosquito Abatement District requested the School District consult with the Mosquito Abatement District during final design for all on-site features which may breed mosquitos. As this comment did not address a direct potential environmental impact to consider in the EIR, it is not further considered in the EIR. However, the comment was acknowledged.

S.5 SUMMARY OF ALTERNATIVES

Project alternatives are presented, discussed, analyzed and compared in Section 3.6, Alternatives.

The following project alternatives were analyzed:

- Alternative 1: No project/No Development on Site Alternative
- Alternative 2: No project/No New Middle School Alternative
- Alternative 3: Alternative Site Alternative
- Alternative 4: Modified Site Alternative

No Project/No Development on Site Alternative

The "No Project/No Development on Site" alternative would result in no development of a new middle school on the project site. Based on the school district's need for the construction of a new middle school to accommodate current overcrowding in schools and anticipated future population growth in the school district's boundary, this alternative reasonably assumes that if the proposed new middle school were not to be development on the project site, a new middle school would be developed at another location within the school district's boundary.

No Project/No New Middle School Alternative

The "No Project/No New Middle School" alternative would result in no development on the project site and no new middle school established at another location within the school district's boundary. Under this alternative, the school district would continue to accommodate existing and future students within existing school district school facilities.

Alternative Site Alternative

The "Alternative Site" alternative would construct and operate a new middle school at an alternative location other than the proposed project site. As the General Plan identified a potential future location for middle school at the northeast corner of the intersection of E. Boronda Road and Natividad Road, this is the location considered by this alternative. This alternative considers that the same size of school would be development on the alternative site.

Modified Project Alternative

The "Modified Project" alternative would re-configure the site's design to entirely avoid potential impacts biological resources, as described below. All other potential impacts, with the possible exception of traffic and circulation, would be similar to potential impacts of the proposed project.

Comparison of Alternatives

As displayed in Table 21, Project Alternatives Summary, the No Project/No New Middle School alternative would have the least amount of adverse environmental impacts compared to the No Project/No Development on Site and Modified Project alternatives and the proposed project.

The No Project/No Development on the Site alternative would avoid the proposed project's potential significant impact to biological resources; however, as identification of an alternative location for a new middle school has not been identified and is beyond the scope of this EIR, it can be reasonably deducted that potential land use planning, noise, and transportation and traffic impacts may be greater than those of the proposed project.

The Alternative Site alternative would avoid the proposed project's potential significant impact to biological resources. However, the Alternative Site alternative would result in significant impacts to aesthetics, agricultural resources, and hydrology and water quality (groundwater supply) similar to the proposed project. Furthermore, based on the alternative site's location in closer proximity to sensitive receptors, construction impacts associated with air quality and noise, can be anticipated to be greater than for the proposed project. Lastly, based on the alternative site's location at heavily used intersection, site access may pose greater impacts to transportation and traffic than the proposed project.

The Modified Project alternative would avoid the proposed project's potential significant impact to biological resources on the project site through altered site design. The Modified Project alternative would thereafter have similar potential impacts as the proposed project, with the exception of potential impacts to transportation and traffic. In the absence of modified design plans for site access and review of new site access by a qualified traffic consultant, it can be reasonably assumed that potential impacts to transportation and traffic may be greater than those of the proposed project which would be mitigated to avoid potential significant impacts.

Therefore, the environmentally superior alternative would be the No Project/No New Middle School alternative; however, as identified in Section 6, Alternatives, this alternative would minimally meet the objectives of the proposed project. Therefore, the Modified Project alternative would be the environmentally superior alternative which also meets the objectives of the proposed project.

This side intentionally left blank.

I.0 INTRODUCTION

I.I ORGANIZATION OF THE REPORT

This environmental impact report ("EIR") is organized into the following sections:

S.0 Summary

The summary, presented earlier, provides a brief summary of the proposed actions, significant environmental effects with proposed mitigation measures and alternatives, areas of controversy known to the lead agency, and issues to be resolved including the choice among alternatives and whether or how to mitigated significant effects.

1.0 Introduction

The introduction presents the organization of this draft EIR, purpose of preparing the report, standards used in the environmental analysis, the notice of preparation, and terminology used in the draft EIR.

2.0 Project Description

The project description presents the location of the project site, a statement of objectives sought by the school district, a general description of the project's technical, economic, and environmental characteristics, and a description of the intended uses of the EIR.

3.0 Environmental Effects

The environmental effects section presents the local and regional setting as applicable to each environmental topic area addressed, analysis of the environmental effects of the proposed project, and mitigation measures to avoid or reduce environmental effects. Topics addressed in detail in this EIR are aesthetics; agricultural resources; air quality; biological resources, cultural resources, greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; noise; and transportation. Effects for energy; geology and soils; land use and planning; population, housing, and growth inducement; mineral resources; public services; recreation; and utilities/service systems were not found to be significant, and are addressed briefly at the end of this section.

4.0 Cumulative Impacts

This section presents the cumulative project scenario and evaluates whether the proposed project's contribution to cumulative impacts is considerable.

5.0 Other CEQA Considerations

This section discusses additional environmental implications of the proposed project as required by the California Environmental Quality Act ("CEQA"). The topics discussed in this section include growth-inducing impacts, significant unavoidable environmental effects, and energy demand.

6.0 Alternatives

The alternatives section presents the environmental effects of variations of the proposed project or alternatives to the proposed project.

7.0 Sources and Report Preparers

This section provides a list of sources cited in the EIR and report preparers.

I.2 PURPOSE AND STANDARDS

Authorization and Purpose

EIRs are authorized by Public Resources Code Section 21000 et seq., which establishes CEQA. CEQA was passed by the California Legislature in 1970 to establish protocols for environmental review of proposed projects, and has been amended numerous times since. The California Office of Planning and Research developed the CEQA Guidelines to assist in implementing CEQA. The Salinas Union High School District (hereinafter "school district") is the lead agency for this EIR.

In accordance with CEQA Guidelines Section 15050, if a project is to be carried out or approved by more than one public agency, one public agency shall be responsible for preparing an EIR, and is referred to as the lead agency. The lead agency is typically the agency that will carry out the project or that has the greatest responsibility for supervising or approving the project.

Preparation Standards and Methods

An EIR is an informational document that will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

This EIR has been prepared by EMC Planning Group (hereinafter "consultant") under contract to the lead agency in accordance with CEQA and its implementing guidelines that were in effect at the time the EIR was released for public review. This EIR has been prepared using available information from private and public sources noted herein, as well as information generated by the consultant through field investigation. This EIR will be used to inform public decisionmakers and their constituents of the environmental impacts of the proposed project.

This EIR describes and evaluates the existing environmental setting of the project site and surrounding areas, discusses the characteristics of the proposed project, identifies environmental impacts associated with the proposed project, and provides feasible mitigation measures that can be implemented to reduce or avoid identified adverse environmental impacts. This EIR also evaluates reasonable alternatives to the proposed project.

If an EIR identifies a significant adverse impact, the lead agency may approve the project only if it finds that mitigation measures have been required to reduce the impact's significance, or that such mitigation is infeasible for specified social, economic, and/or other reasons (Public Resources Code section 21081). The lead agency may not omit from the project conditions a mitigation measure associated with a project impact identified in the EIR as significant, unless it makes specific findings regarding the omission.

This EIR is an objective public disclosure document that takes no position on the merits of the proposed project. Therefore, the findings of this EIR do not advocate a position "for" or "against" the proposed project. Instead, this EIR provides information on which decisions about the proposed project can be based. The EIR has been prepared according to the professional standards and practices of the EIR participants' individual disciplines and in conformance with the legal requirements and informational expectations of CEQA and its implementing guidelines.

Requirements for CEQA Review of Schools

Public Resources Code Section 21151.8 sets forth specific requirements for environmental review of schools. The EIR must include the following information on the site:

- whether the site is a current or former hazardous waste disposal site or solid waste disposal site, and, if so, whether the wastes have been removed;
- whether the site is a hazardous substance release site;
- if the site contains one or more pipelines, situated underground or aboveground, that carries hazardous substances, extremely hazardous substances, or hazardous wastes (excepting natural gas lines used only to supply natural gas locally); and
- if the site is within 500 feet of a freeway or other busy traffic corridor.

Public Resources Code Section 21151.8 also requires the school district to notify and consult with the City of Salinas Planning Commission and the Monterey Bay Unified Air Pollution Control District regarding potential hazards that could affect the site. The school district conducted this consultation associated with their CEQA-compliance process in 2008-09, prior to acquisition of the project site. The school district board of trustees is required to make specified findings regarding hazards in approving the school construction.

I.3 CEQA PROCESS

Notice of Preparation

CEQA Guidelines section 15375 requires the lead agency to prepare a notice of preparation ("NOP") to solicit agencies' input on the scope of the EIR. An NOP is described as:

...a brief notice sent by the lead agency to notify the responsible agencies, trustee agencies, and involved federal agencies that the lead agency plans

to prepare an EIR for the project. The purpose of the notice is to solicit guidance from those agencies as to the scope and content of the environmental information to be included in the EIR.

The lead agency has determined that the proposed New Middle School #5 (hereinafter "proposed project") may result in significant adverse environmental effects, as defined by CEQA Guidelines section 15064. Therefore, the lead agency has had this EIR prepared to evaluate the potentially significant adverse environmental impacts of the proposed project.

Based upon the decision to prepare an EIR, the lead agency prepared and distributed an NOP for a 30-day comment period from Wednesday, August 12, 2015 to Thursday, September 10, 2015 in accordance with CEQA Guidelines section 15082.

The NOP and responses to the NOP received from responsible agencies are contained in Appendix A.

I.4 TERMINOLOGY

Characterization of Impacts

This EIR uses the following terminology to denote the significance of environmental impacts:

- "No impact" means that no change from existing conditions is expected to occur;
- A "less than significant impact" is an adverse impact, but would not cause a substantial adverse change in the physical environment, and no mitigation is required;
- A "significant impact" or "potentially significant impact" would, or would potentially, cause a substantial adverse change in the physical environment, and mitigation is required;
- A "less than significant impact with implementation of mitigation measures" means that the impact would cause no substantial adverse change in the physical environment if identified mitigation measures are implemented;
- A "significant and unavoidable impact" would cause a substantial change in the physical environment and cannot be avoided if the project is implemented; mitigation may be recommended, but will not reduce the impact to less than significant levels; and
- A "beneficial impact" is an impact that would result in a decrease in existing adverse conditions in the physical environment if the project is implemented.

Abbreviations and Acronyms

AB	Assembly Bill
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AFY	Acre Feet per Year
ALP	Agricultural Land Preservation Program
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
BPM	Best Management Practices
BTU	British Thermal Unit
C_2F_6	Hexafluoroethane
Caltrans	California Department of Transportation
CalEEMod	California Emissions Estimator Model
CalFire	California Department of Forestry and Fire Protection
CalGreen	Green Building Standards Code
CDFW	California Department of Fish and Wildlife
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CF_4	Tetrafluoromethane
CFC	Chlorofluorocarbon
CH_4	Methane
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalency Level

CNPS	California Native Plant Society
СО	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dB	Decibel
DNL	Day-night averaged noise level
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FIRM	FEMA Flood Insurance Rate Map
GHG	Greenhouse Gases
GWP	Global Warming Potential
HFC	Hydrofluorocarbon
HVAC	Heating, ventilation, air conditioning
kWhr	kilowatt hour
LED	Light-emitting diode
LOS	Level of Service
MBUAPCD	Monterey Bay Unified Air Pollution Control District
MCL	Maximum contaminant level
MLD	Most likely descendent
MM	Mitigation Measure

1.0 INTRODUCTION

MMRP	Mitigation Monitoring and Reporting Program
MMT	One Teragram
MRWPCA	Monterey Regional Water Pollution Control Agency
NPDES	National Pollutant Discharge Elimination System
NO	Nitrogen Dioxide
N ₂ O	Nitrous Oxide
NOC	Notice of Completion
NOP	Notice of Preparation
O ₃	Ozone
PEA	Preliminary Environmental Assessment
РСВ	Polychlorinated biphenyls
PFC	Perfluorocarbon
PG&E	Pacific Gas & Electric Company
PM _{2.5}	Fine Particulate Matter 2.5 micrometers or less
PM _{IO}	Particulate Matter 10 microns or less
ppm	Parts per Million
PPV	Peak particle velocity
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF_6	Sulfur hexafluoride
SLO	San Luis Obispo
SO ₂	Sulfur Dioxide

SOI	Sphere of Influence
SUHSD	Salinas Union High School District
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TPH	Total petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geologic Survey
VOC	Volatile organic compound

1.0 INTRODUCTION

This side intentionally left blank.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SETTING

Location

The 18-acre project site is located northeast of the corner of Boronda Road and Natividad Road in the city of Salinas ("City") within the County of Monterey ("County"). Figure 1, Project Location, presents the location of the site within the context of the region and the City. The project site includes portions of assessor's parcel numbers 153-091-006 and 153-091-007.

Existing Conditions

The topography of the project site is generally flat. The site is currently in agricultural production and surrounding properties are currently in agricultural production for both chard and strawberries. The only built environment components on the project site include irrigation system features (e.g. a well, a pump, and irrigation piping) and barbed wire fencing. There is one large man-made irrigation ditch in the northern portion of the project site that flows into Natividad Creek. This ditch ends at the junction of a pump to an underground irrigation system.

Figure 2, Project Site and Vicinity, presents an aerial view of the project site and the immediate surroundings, including the area which would contain proposed off-site improvements (discussed later), and Figure 3, Site Photos, presents photographs of the project site.

Existing Project Vicinity Conditions

As shown in Figure 2, Project Site and Vicinity, and Figure 3, Site Photos, properties surrounding the project site are in agricultural production. The only roads within a half-mile of

the project site are private, unpaved dirt roads that provide access to the project site and adjacent properties. Parcels to the northeast of the site, and west of Old Stage Road, contain rural residential land uses. Residential uses and urban development and infrastructure associated with the City of Salinas extend southward of East Boronda Road to the south of the site.

The project site is located between Gabilan Creek and Natividad Creek. Gabilan Creek runs north-south approximately 0.7 miles east of the project site, and Natividad Creek runs north-south approximately 0.25 miles west of the project site. Portions of Natividad Creek have been converted to agricultural ditches within the agricultural production area, and portions retain a natural flow. Irrigation and drainage ditches flow into Gabilan Creek and Natividad Creek in the vicinity of the project site.

Project Site and Vicinity Planning Designations

The project site is designated as Residential Medium Density, Public/Semi Public, Open Space, and Mixed Use by the *City of Salinas 2002 General Plan* ("General Plan"). Surrounding areas are designated for residential, mixed use, and open space. The project site and the surrounding area is located within the City of Salinas' Future Growth Area ("Future Growth Area"), as designated by the General Plan, and is currently zoned by the City as New Urbanism Interim.

Figure 4, General Plan Land Use Designations Map, shows the General Plan land use designations of the project site and surrounding area, and also shows the location of the site within the City limits and sphere of influence. The extent of the Future Growth Area is shown in Figure 5, Salinas Future Growth Area.

The project site is located within the proposed Central Area Specific Plan ("proposed Specific Plan"). The site is identified within the proposed Specific Plan as "7-8 Middle School, 18 Net Acres" and is zoned as Public Semi-Public. The proposed Specific Plan currently indicates that land uses to the west of the project site would be zoned Village Center, allowing for multi-family and cottage-style residential, retail, and office land uses. Areas to the south north and east are zoned for neighborhood uses. Figure 6, Proposed Central Area Specific Plan, shows the project site location within the proposed Specific Plan. The proposed Specific Plan would locate a new library to the southwest of the project site, and parkland is proposed across the street from the northeastern corner of the project site.

The proposed Specific Plan includes increased utility infrastructure, circulation infrastructure, extension of existing roadways, and upgrades to existing roadways within the area of the project site. These infrastructure improvements to the area and the conversion of existing farmland to non-farmland uses as envisioned by the General Plan and proposed Specific Plan are anticipated to occur, regardless of the proposed project.



2.0 PROJECT DESCRIPTION

This side intentionally left blank.






 $\textcircled{1}^{\mbox{View west toward site showing active}}_{\mbox{agriculture.}}$



(2) View of northwestern corner of site.



Project Site

Source: Esri 2015 Photographs: EMC Planning Group 2015



(3) View of southern portion of site showing fallow agricultural fields.



(4) Photo of potentially jurisdictional drainage ditch.

Figure 3 Site Photographs

SUHSD New Middle School #5 Construction EIR









Not to scale

Source: City of Salinas Planning 2015

Figure 6 Proposed Central Area Specific Plan

SUHSD New Middle School #5 Construction EIR

However, as the proposed Specific Plan remains in draft form at the time of preparation of this EIR, the proposed project would be approved for construction and operation in advance of the City of Salinas' final approval process for the proposed Specific Plan. The advanced timing of the proposed project in relation to the final approval process for the more encompassing proposed Specific Plan is required based on the school district's need to accommodate a growing student population within school district facilities. While future development of areas surrounding the project site is anticipated, the proposed project is proposed as an individual project and, therefore, the EIR considers project-level impacts. Potential impacts of the proposed Specific Plan would be considered once the proposed Specific Plan is finalized and environmental documentation has been prepared specifically for the proposed Specific Plan.

2.2 STATEMENT OF OBJECTIVES

In accordance with CEQA, a statement of objectives sought by the proposed project should be clearly stated to aid the lead agency in developing a reasonable range of alternatives to evaluate in the EIR. These objectives are also utilized to aid decision makers in preparation of findings or statement of overriding considerations, if necessary (Title 14 CCR § 15124 (b)).

The following objectives, as prepared by the school district, outline the underlying purpose of the proposed project. The objectives of the proposed project are to:

- Provide students with a rigorous and comprehensive academic program which will prepare them in becoming responsible and independent citizens of a global society;
- Provide a high-quality transition of students from the more structured elementary school to the middle school environment and then on to the high school environment to ensure the student's positive emotional, mental, and physical development focusing on:
 - Academic achievement;
 - Providing a variety of activities to explore greater possibilities for independent thinking;
 - Exposing students to a more global sense of community to include cultural, academic and interest diversity;
 - Providing a safe and orderly environment to foster a personal sense of community ownership and responsibility, and
 - Providing facilities that encourage and support the learning environment.

- Provide design and construction methodology that includes a high degree of flexibility to accommodate program changes in the future and is organized in a manner which ensures a sense of community and a personalized education experience for each student;
- Eliminate portable classrooms that have become too old to maintain; reduce student densities on school sites which exceed California Department of Education recommendations;
- Free up classroom space that can be used for special programs;
- Take maximum advantage of State school facility funds; and
- Construct one new middle school (middle school #5) with a capacity of 1,000 students.

Project Background

As identified above, the project site is located within the City's Future Growth Area, as designated by the General Plan. The General Plan identifies the Future Growth Area as undeveloped areas targeted for growth where future growth is visualized in a compact form that is pedestrian and transit-friendly with activity nodes located throughout the area. Environmental impacts of development within the Future Growth Area were studied in the *City of Salinas 2002 General Plan Final EIR* ("General Plan EIR") and *Final Supplement for the City of Salinas 2007 General Plan Final Program EIR* ("SEIR").

The *Creekbridge Middle School Site Acquisition Initial Study* ("initial study") was prepared by the school district in May 2009 (EMC Planning Group). The initial study analyzed, to the extent possible, the environmental impacts associated with acquisition and future development of a middle school. However, at the time of that initial study, the school district was proposing only to acquire the project site, with project design and construction of a middle school still in the future when funding was available. Because site-specific designs had not been prepared, the initial study could not fully evaluate impacts associated with the development of the school.

The initial study assumed that supplemental environmental analysis would be required when the school district commenced with plans to design and build the school. Therefore, this EIR addresses the issues that could not be fully addressed at the time the initial study was prepared, including: aesthetics, agricultural resources, air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise and transportation. The initial study is included in Appendix B in this EIR.

The initial study stated that the proposed middle school would

...be constructed when the surrounding area is developed in accordance with a specific plan that is currently being prepared by a private entity in coordination with the City of Salinas. The school district does not plan to construct the school prior to adjacent development occurring due to the cost of providing infrastructure to the site.

Development in the Future Growth Area has not occurred as was anticipated in 2009 when the initial study was prepared. At the time of preparation of this EIR, there is still no schedule for when development in the Future Growth Area will occur. The City requires private development within the Future Growth Area to prepare and submit proposed specific plans that must be adopted by the City prior to private development proceeding within the Future Growth Area. Two proposed specific plans, the proposed Specific Plan (identified in Figure 6, Proposed Central Area Specific Plan, and encompassing the project site), and the adjacent the West Area Specific Plan, have been submitted to the City and are currently undergoing environmental review (Elliot, Gabriel, Telephone conversation with consultant, 6 October 2015).

Project Overview

The school district is proposing the construction and operation of a new middle school approximately 1,500 feet northeast of the intersection of Hemingway Drive and Boronda Road, within the northern limits of the City of Salinas. The new middle school would accommodate between 800 and 1,000 seventh and eighth grade students. The new middle school is anticipated to have a range of 40-50 employees, based on the school district's classroom loading and target student population numbers.

The middle school is expected to have approximately 29 standard classrooms, 12 special use rooms, six science classrooms, administration building, gymnasium, multi-use building with kitchen, media center with computer lab, locker room, courtyard, and restrooms, totaling approximately 75,750 square feet. Outdoor areas would include sports fields (soccer, football, baseball, and softball), basketball courts, an all-weather track, parking lots and drop-off area, and a storage area for bicycles and skateboards. Project design will include construction of on-site landscaping and storm water management facilities such as a retention pond, swales, and plantings. The proposed middle school site plan is presented in Figure 7, Proposed Site Plan.

Project Approval Process

The proposed project would be an allowable use within the City's land designations and zoning. Therefore, no amendment to the General Plan or City zoning code would be required for approval of the proposed project on the project site. However, based on State of California Government Code 53094, the school district can consider itself exempt from City regulation. Government Code 53094 states:

- (a) Notwithstanding any other provision of this article, this article does not require a school district to comply with the zoning ordinances of a county or city unless the zoning ordinance makes provision for the location of public schools and unless the city or county has adopted a general plan.
- (b) Notwithstanding subdivision (a), the governing board of a school district that has complied with the requirements of Section 65352.2 of this code and Section 21151.2 of the Public Resources Code, by a vote of two-thirds of its members, may render a city or county zoning ordinance inapplicable to a proposed use of property by the school district. The governing board of the school district may not take this action when the proposed use of the property by the school district is for non-classroom facilities, including, but not limited to, warehouses, administrative buildings, and automotive storage and repair buildings.
- (c) The governing board of the school district shall, within 10 days, notify the city or county concerned of any action taken pursuant to subdivision (b). If the governing board has taken such an action, the city or county may commence an action in the superior court of the county whose zoning ordinance is involved or in which is situated the city whose zoning ordinance is involved, seeking a review of the action of the governing board of the school district to determine whether it was arbitrary and capricious. The city or county shall cause a copy of the complaint to be served on the board. If the court determines that the action was arbitrary and capricious, it shall declare it to be of no force and effect, and the zoning ordinance in question shall be applicable to the use of the property by the school district.

Attendance Boundaries

Figure 8, Existing Attendance Boundaries, displays existing Salinas middle school attendance boundaries. Realignment of existing middle schools attendance boundaries would be required with implementation of the proposed project.

Phasing for Student Attendance

The middle school would open with 7th and 8th grade classes. Approximately 800 of the 1,000 students would come from existing neighborhoods within the school district and are currently attending other district schools. Currently, 75 percent of the 800 existing students attend Harden Middle School, located at 1561 McKinnon Drive; nine percent attend La Paz Middle School, located at 1300 N. Sanborn Road; eight percent attend El Sausal Middle School, located at 1155 East Alisal Street, and eight percent attend Washington Middle School, located at 561 Iverson



Not to scale

Source: McKim Design Group 2016

Figure 7 Proposed Site Plan

E M C -

SUHSD New Middle School #5 Construction EIR



SUHSD New Middle School #5 Construction EIR

Street. All of these campuses have portable classrooms to house the over-capacity students. Portables could be removed from the existing schools depending on how the middle school boundaries are redrawn, as each school's attendance area would be adjusted. Refer to Figure 8, Existing Attendance Boundaries, for the location of each of these middle schools in relation to the project site.

The balance of students would come from other existing neighborhoods, or from the future neighborhoods within the Future Growth Area. Currently, there are no applications for residential development within this area of the City of Salinas. The additional 200 students could also be added through attendance boundary modifications or through the school district's school of choice program.

Physical Project Characteristics

Building Heights

The approximate maximum heights by building type are listed below:

- Single-story classroom: 20 feet
- Two-story classroom: 38 feet
- Multi-use building: 40 feet
- Administrative offices buildings: 29 feet
- Gym building: 42 feet
- Media center building: 29 feet

Building Style and Character

- Architectural coatings and materials would be low or zero VOC in nature, including finishes for paint, carpet, and other flooring materials and adhesives associated with building insulation.
- Building exteriors would be finished in cement plaster with access of other materials (tile, wood, pre-finished metals, etc.).
- Building roofs would be pitched, curved, and/or shed roof lines with cool roof or equivalent technology.

- Building style would be aligned with regional architectural traditions, such as complementing Mission-style architecture.
- Emphasis would be given to natural methods of daylighting and ventilations in buildings on the site. Window placement would be prioritized along the axes most conducive to passive methods (solar gain, prevailing winds, etc.).
- Buildings on the site would have varied roof heights along continuous building lengths.
- Parking areas would be de-emphasized, with primary access to the site provided from side streets.

Site Layout

- Pick-up and drop-off areas would be de-emphasized by providing access from side streets.
- An emphasis would be placed on pedestrian access along the front perimeter of the school.
- It is intended to provide tree-shaded plazas and parking areas on the project site, in accordance with final landscaping plans for the project site.
- Buildings on the site would be set back from the right-of-way by a minimum of 20 feet.
- On-site fencing would be minimized in favor of using building placements to create a barrier along the perimeter of the site for security purposes where feasible.

Energy & Water Saving Features

- Buildings would employ light-emitting diode lighting systems (interior and exterior) with Title 24 designated lighting controls.
- Buildings would use energy-efficient heating, ventilation, and air conditioning systems and site-networked controls along with programmable thermostat controls.
- Areas that require appliances would make use of Energy Star versions or equivalent.
- Plumbing fixtures throughout all buildings of the proposed project would be low-flow.
- A total of three car charging stations are anticipated to be installed on the site.
- Conduit is planned to be installed which would accommodate future solar shades in parking areas of the site.

Parking

Parking for staff would be provided in the staff parking lot to be located in the northwestern portion of the project site, accessible from Future Street C. This lot would provide 119 parking spaces and would provide the school bus pick-up/drop off area. A smaller parking lot located in the southwestern portion of the project site and accessible from Future Street B, referred to as they media center/administration building parking lot, would provide 17 parking spaces for visitors.

Off-site Access Improvements

Access to the site would be provided by new off-site roadways connecting the project site to East Boronda Road to the south. These future roadways are shown on Figure 9, Offsite Improvements, and are identified on the Improvement Plans for Future Middle School Offsite Improvements (RJA 2014), which are included as Appendix C. In general, the school district would construct only those portions of roads in the proposed Specific Plan that are necessary to reach the proposed driveways and parking lots. Future roadway improvements adjacent to the project site would include segments of Future Streets A – E, and on Hemmingway Drive and East Boronda Road to provide access to the project site. The proposed project includes a number of off-site improvements necessary to provide adequate bike and pedestrian access to the project site.

Site Preparation

The project site is currently used for agricultural production and there are no structures which would require demolition on the site prior to the construction of the proposed project. Site grading would be conducted in accordance with the project's grading plan.

Phasing and Construction

The school district anticipates breaking ground for the project in mid-2017 and opening the school in the fall of 2019.

Public Services

Public services to be provided to the proposed project include water, sanitary sewer, storm water, and gas and electric services.

Water mains would be extended along Future Street A to the project site from South Greenway Street and Hemingway Drive, then on to the City of Salinas sewer system located within East Boronda Road.

To service the project site, sewer lines would be extended along Future Street A to connect with South Greenway Street and Hemingway Drive, then on to the City of Salinas sewer system located within East Boronda Road.

With incorporation of the proposed project's storm water control plan, run-off from the project site would be retained on-site and sized so as not to contribute to the local area's flood potential. The existing drainage pattern of the area would be accommodated on the site by either design measures to divert flows from the area into the existing agricultural ditch on the site, or by piping the flows across the site.

PG&E would provide gas and electric services through connections to the site from Future Street A, South Greenway Street, and Hemingway Drive, on to existing facilities within/on East Boronda Road.

The proposed project's various on and off-site improvements are displayed in Improvement Plans for Future Middle School Offsite Improvements (RJA 2014), which are included as Appendix C.

2.4 EIR USES AND APPROVALS

As mandated by CEQA Guidelines section 15124(d), this section contains a list of agencies that are expected to use the EIR in their decision-making, and a list of the approvals for which the EIR will be used. These lists include information that is known to the lead agency.

Local Agencies

- Salinas Union High School District (Lead Agency)
 - Approval Site plan
 - Site development
- City of Salinas
 - Approval Encroachment permit for future roadway connection to East Boronda Road
- County of Monterey
 - Approval Well abandonment permit, if and when abandonment is necessary



E M C

Source: Ruggeri-Jensen-Azar 2014

Figure 9 Offsite Improvements SUHSD New Middle School #5 Construction EIR

State Agencies

- Division of the State Architect
 - Approval Project plans approval
- Office of Public School Construction
 - Approval Funding application
- California Department of Toxic Substances Control (DTSC)
 - Approval Final site approval
- Central Coast Regional Water Quality Control Board
 - Approval National Pollutant Discharge Elimination System Permit for Construction
 - Approval Section 401 Permit Compliance
- California Department of Fish & Wildlife
 - Approval Streambed Alteration Agreement

Federal Agencies

- U.S. Army Corps of Engineers
 - Approval Section 404 Permit Compliance

3.0 ENVIRONMENTAL EFFECTS

3.1 AESTHETICS

This section presents the regional and site setting with regard to aesthetics, and discusses the potential for impacts to visual resources. Comment letters on the NOP included concerns regarding the school site's interfacing with surrounding proposed development, as well as identifying pedestrian access points and whether fencing would be implemented.

Environmental Setting

Project Site

The project site is located on farmland northeast of the Boronda Road/Hemingway Drive intersection in the City of Salinas. Roadways adjacent to and in proximity to the project site are unpaved dirt roads that provide access to the project site and adjacent properties. The nearest public roadway is East Boronda Road approximately 0.45 miles to the south of the project site.

The topography of the site is generally flat. Agricultural drainage ditches are located along the eastern and southeastern boundaries of the site. The project site is currently in agricultural production with the surrounding properties in agricultural production as well. The only built environment components on the site include irrigation system features (e.g. a well, a pump, and irrigation piping) and barbed wire fencing. Figure 3, Site Photos, presented earlier, includes recent photographs of the project site. There is one pole-mounted transformer located near the northern edge of the site and above-ground phone and power transmission lines and an unpaved dirt road along the north boundary of the project site. No street lighting is present.

The project site is not located in a Gateway Overlay District as designated in the General Plan (General Plan, Figure CD-1, Gateway Overlay Zones) and is not adjacent to a state-designated

scenic highway or visible from U.S. Highway 101 (Figure 2, Project Site and Vicinity, presented earlier). The project site is not located within an area defined by the General Plan or identified in the General Plan EIR as within a scenic vista. The project site is not located within an area considered to have historic or architectural merit (General Plan, Figure COS-3, Historic and Architectural Resources).

Surrounding Area

The project site is in the northeastern area of the City of Salinas. The area is dominated by agricultural land uses and scattered rural residences. Two mountain ranges are visible from the City as well as the project site: the Gabilan range to the northeast and the Sierra de Salinas range to the southwest.

Standards of Significance

CEQA Guidelines appendix G indicates that a project may have a significant effect on the environment if it would:

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

Analysis, Impacts and Mitigation

Environmental Topics Eliminated from Further Analysis

Scenic Vista and Resources within a Scenic Highway. As identified in the environmental setting above, the project site is not located within the viewshed of an area defined as a scenic vista and is not located within the viewshed from a state scenic highway. Therefore, there would be no impact to an identified scenic vista or to the viewshed from state-designated scenic highway from implementation of the proposed project.

IMPACT: THE PROJECT WOULD ALTER THE EXISTING VISUAL CHARACTER OR QUALITY OF THE SITE (SIGNIFICANT AND UNAVOIDABLE)

Development of a new middle school on the project site would result in the introduction of a new urban use to an area that is currently predominantly agricultural. The project site is located within the Future Growth Area and is identified for development as a school site in the General Plan and the proposed Specific Plan, as is the surrounding area. The proposed site plan includes a landscaping plan. The proposed project would include a landscape zone containing grassy retention areas and trees along the proposed new roads immediately facing the proposed middle school campus, which would function as both "setback" distance from the roadway and a visual buffer. Where the landscape zone is not present, the views would be mainly of the athletic fields and courts.

A middle school constructed on the project site would not be out of context with the planned uses for the vicinity, as identified in the General Plan or the proposed Specific Plan. The proposed building style would be aligned with regional traditions (complementing mission style) and would have varied roof heights along continuous building lengths. The project proposes buildings ranging in height from 20 feet (single-story classrooms) to 42 feet (gymnasium). However, at this time, the surrounding area is undeveloped. The proposed Specific Plan remains in draft form at the time of preparation of this EIR.

Final project design plans for the proposed project have not been prepared. However, the new middle school would substantially change the visual character of the site from agricultural uses to urban, with buildings and facilities as described in Section 2.0, Project Description. Potential impacts would be significant and unavoidable and there is no feasible mitigation available that would reduce this impact.

IMPACT: THE PROJECT WOULD INTRODUCE NEW SOURCES OF LIGHT AND GLARE (LESS THAN SIGNIFICANT WITH MITIGATION)

Development of a new middle school on the project site would introduce new sources of light and glare, including nighttime safety lighting for school buildings and parking areas. Buildings would employ LED lighting systems (interior and exterior) with California Title 24 designated lighting controls. The proposed project does not include lighting at the sports fields.

Parcels surrounding the project site are designated for residential development by the General Plan and the proposed Specific Plan. The installation of new lighting could potentially result in impacts to planned development associated with light intrusion and nighttime visibility. These impacts would be considered significant. Implementation of the following mitigation measures would reduce impacts associated with new sources of light and glare to less than significant and no additional mitigation is required.

Mitigation Measure

AES-1. The Salinas Union High School District will prepare a lighting study evaluating the future proposed school facilities. The lighting study will identify methods for reducing potential lighting impacts to neighbors, motorists, and nighttime views while maintaining safety and the objectives of the school facility. The study will consider, but not be limited to, recommending the following measures that may serve to minimize light intrusion: the use of energy efficient lights and/or low- or high-pressure sodium lights; exclusion of mercury vapor lights; light shielding and direction away from off-site locations; limitations on light pole height; and, limitations on hours of lighting. All economically feasible recommendations in the lighting study that do not compromise school programs will be implemented prior to occupancy of the school, or prior to use of lighting for nighttime visibility during school activities, whichever comes first.

3.2 AGRICULTURAL RESOURCES

This section provides an overview of existing agricultural resources within the project site and within the vicinity of the project site, and assesses potential impacts to agricultural resources from implementation of the proposed project. Comments regarding potential impacts to agricultural resources were received during the EIR's NOP process from the Monterey County Resource Management Agency and the Monterey County Agricultural Commissioner's Office. These comments expressed concern with the conversion of farmland to non-farmland use and the potential incompatibility of the proposed project with its surrounding area.

Environmental Setting

Regional Agriculture

The highly productive agricultural lands surrounding Salinas create a distinct urban/agricultural edge that serves as a reminder of the source of the area's economic well-being. The City lies at the north end of the Salinas Valley, known as "The Salad Bowl of the World," and is the processing and shipping point for lettuce, broccoli, mushrooms, and strawberries, along with numerous other crops. The climate is also ideal for the floral industry and grape vineyards. With its mild climate and fertile soil, Salinas has become the processing and shipping point for one of the world's largest agricultural centers.

Salinas has historically been an agricultural community. While most of the land within the City limits formerly used for agriculture has been developed into urban use, there are remaining

parcels that continue in agricultural production, and agricultural uses surround the City. These agricultural areas help to preserve the traditional rural character of the community, maintain visual open space, and provide substantial economic benefit to the community. However, as growth continues to occur, the expansion of urban uses into portions of the interior and surrounding agricultural areas will be necessary in part to provide adequate housing to meet the existing demand for housing for agriculture and agriculture-related workers and their families (City of Salinas 2002).

Project Site Agriculture and Soils

Project Site Agricultural Operations. The project site is currently in agricultural production. Surrounding properties are also in agricultural production. Historical records and aerial photographs show that the site has historically been used for cultivation of various row crops, including broccoli and strawberries (Kleinfelder 2009). The only built environment components on the project site are agriculturally related and include irrigation system features (e.g. a well, a pump, and irrigation piping) and barbed wire fencing.

According to the Resources Conservation Service web soil survey tool, the project site is comprised of Placentia sandy loam (2 to 9 percent slopes), and Chualar loam (0 to 2 percent slopes) (NRCS, 2015). These soils are described below:

PnC - Placentia sandy loam, 2 to 9 percent slopes. This is a gently sloping and moderately sloping soil on old alluvial fans and terraces. Slopes are mostly 4 to 6 percent. The available water capacity is 2 to 5 inches; some water is slowly available from the clay subsoil. This soil is used mainly for grain, grain-hay, and pasture. Some areas are used for irrigated row and field crops and some strawberries.

CbA - Chualar loam, 0 to 2 percent slopes. This soil is on alluvial fans and terraces. In places the surface layer is sandy loam. Runoff is very slow, and the erosion hazard is minimal to slight. This soil is used mostly for irrigated row crops, field crops, vineyards, and pasture. It is also used for dryfarmed grain or native range.

California Farmland Mapping and Monitoring Program

The California Department of Conservation uses the Natural Resources Conservation Service soil classifications to classify agricultural lands under its Farmland Mapping and Monitoring Program. The Farmland Mapping and Monitoring Program was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands to non-agricultural uses. These designated agricultural lands are included in the important farmland maps used in planning for the present and future of California's agricultural land resources. The

California Department of Conservation has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding classifications. The categories mapped by the California Department of Conservation, which are applicable to the project site, are described below. In addition to mapping existing farmland, the Farmland Mapping and Monitoring Program provides analysis of agricultural land use changes throughout California.

Prime Farmland. Prime Farmland has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply necessary to produce sustained high yields. To be classified as Prime Farmland, the land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Farmland of Statewide Importance. This is farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. The land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Project Site. The project site is comprised of land classified as Prime Farmland and Farmland of Statewide Importance (Department of Conservation 2012), including the areas where roadway and other off-site improvements would be installed. Figure 10, Important Farmlands, shows the Farmland Mapping and Monitoring Program land classifications on and near the project site. Neither the project site nor any lands on which new roadways would be installed are under Williamson Act parcel restrictions (Department of Conservation 2012).

Regulatory Setting

City of Salinas Agricultural Land Preservation Program

As part of the City's continued implementation of the General Plan and required City follow-up to the Greater Salinas Area Memorandum of Understanding, the City adopted an Agricultural Land Preservation Program (ALP) in April 2008. The ALP was developed in consultation with the County. The ALP is intended to support the implementation of key principles and mitigation measures expressed in the General Plan including:

- Cooperation with the County
- Priority to Redevelopment and Infill projects
- Right to Farm Notices
- Buffers between Agricultural and Non-Agricultural Uses
- Agricultural Land Conservation Easement Program



Figure 10 Important Farmlands

SUHSD New Middle School #5 Construction EIR

3.0 ENVIRONMENTAL EFFECTS

The ALP identifies mitigation for agricultural lands expected to convert to urban uses based on their location. For development to the north and east of U.S. Highway 101, within the City's planned growth direction, no agricultural conservation easements are required, but a mitigation fee of \$750 per acre is required for conversion of agricultural land currently designated Prime Farmland or Farmland of Statewide Importance. For development of lands to the west and south of the City identified in the memorandum, mitigation must include the dedication of agricultural conservation easements to provide for permanent protection of agricultural land. Payment of a mitigation fee is not a mitigation option. All other memorandum identified growth areas to the south and west of U.S. Highway 101, including the Fresh Express annexation project area, the Westside Bypass area as generally shown on Exhibit C to the Memorandum of Understanding and development in the Boronda redevelopment project area are subject to their own separate environmental review and appropriate mitigation measures. The ALP also describes uses to which agricultural mitigation fees may be applied (City of Salinas 2008).

Standards of Significance

CEQA Guidelines appendix G indicates that a project may have a significant effect on the environment if it would:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- conflict with existing zoning for agricultural use, or a Williamson Act contract;
- conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 452), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));
- result in the loss of forest land or conversion of forest land to non-forest use; or
- involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

Analysis, Impacts and Mitigation

Environmental Topics Eliminated from Further Consideration

Timberland/Forest Land. The project site does not contain, and is not located adjacent to, areas of timberland or forest land. Therefore, implementation of the proposed project would have no impact on these areas and no further discussion is included in this section.

Zoning/Williamson Act. The project site and surrounding areas have been designated and zoned for residential and public/semi-public uses and the project site is not under Williamson Act contract. Therefore, the proposed project would not conflict with existing zoning for agricultural uses and no further discussion is included in this section.

IMPACT: THE PROJECT WOULD RESULT IN THE LOSS OF 18 ACRES OF PRIME FARMLAND AND FARMLAND OF STATEWIDE IMPORTANCE (SIGNIFICANT AND UNAVOIDABLE)

The project site is comprised entirely of Prime Farmland and Farmland of Statewide Importance. Implementation of the proposed project would result in the conversion of the entire 18 acres to an urban use. Implementation of the proposed project would contribute to the significant impacts identified in the General Plan EIR. Significant impacts from the loss of agricultural land were addressed in the General Plan EIR (Section 5.9, Agricultural Resources) and the SEIR (Section 2, Agricultural Resources).

The conversion of agricultural resources by development on the project site was evaluated in the General Plan EIR. The project site is located within the General Plan designated Future Growth Area, and away from the best agricultural lands in the south and west (City of Salinas 2002). The General Plan EIR includes policies which encourage growth in the Future Growth Area.

The growth areas planned by the City, which include the project site, were chosen because they are "located away from the best agricultural lands in the south and west." The General Plan EIR presents mitigation that reduces the potential impact from conversion of farmland, but does not substantially lessen the impact to a level considered less than significant (City of Salinas 2002). The mitigation is consistent with the proposed project, and generally requires the City's growth to be directed to the north and east of the city away from the most productive farmland, pursuant to the ALP memorandum of understanding. The General Plan EIR concludes that even with the implementation of mitigation measures, the impact related to the loss of agricultural resources will remain significant and unavoidable.
Regardless, with or without implementation and buildout of the General Plan within and adjacent to the project site within the Future Growth Area, the proposed project would result in conversion of the site from agricultural uses to a school site. This is considered a direct adverse environmental impact to agricultural resources due to the loss of Prime Farmland and Farmland of Statewide Importance. There is no additional feasible mitigation that may be implemented to reduce this significant impact to a less than significant level.

Therefore, this impact is considered significant and unavoidable. The Salinas Union High School District Board of Trustees would be required to adopt a statement of overriding considerations finding that the benefits of the project outweigh the significant environmental impact associated with the loss of important farmlands. However, payment to the ALP of a mitigation fee of \$750 per acre is required as mitigation for conversion of agricultural land, as identified in Mitigation Measure AG-1 below.

Mitigation Measure

AG-1. To contribute toward mitigating the conversion of 18 acres comprised of land classified as Prime Farmland and Farmland of Statewide Importance, the Salinas Union High School District will pay a mitigation fee of \$13,500 to the Monterey County Office of the Agricultural Commissioner.

IMPACT: THE PROJECT MAY IMPACT SURROUNDING AGRICULTURAL USES (LESS THAN SIGNIFICANT WITH MITIGATION)

The project site is bordered by existing agricultural uses. Although these agricultural uses are within the City's Future Growth Area and are designated for non-agricultural use (such as for the project site), the conversion of the project site to a non-agricultural use may impact surrounding agricultural uses until all surrounding areas of the project site are also converted to non-agricultural uses. Therefore, until surrounding areas are converted to non-agricultural use, there could be conflicts between the proposed project and adjacent agricultural operations.

For example, the use of pesticides on surrounding farmland properties could be limited on properties adjacent to the middle school once the middle school is operational. This may decrease the viability of surrounding farmland by limiting the ability to control pests and disease in planted crops. Additionally, access roads extending from East Boronda Road to the project site would extend through an area of agricultural production and vehicle and pedestrian traffic on these access roads may create conflicts with on-going agricultural operations. See Section 3.3, Air Quality, and Section 3.5, Hazards and Hazardous Materials, for additional discussions of potential conflicts between the proposed project and surrounding adjacent agricultural operations.

As identified in these sections, potential impacts from conflicts between the project site and surrounding existing uses are not anticipated to be significant or require mitigation to lessen impacts to a less-than-significant level (see Mitigation Measures AQ-1 and AQ-2).

Development of the new middle school would not cause the abandonment of agricultural operations in the vicinity of the project site beyond what is identified in the General Plan and previously evaluated in the General Plan EIR. The General Plan designated the surrounding area to also be converted to non-agricultural uses. However, potential land use conflict impacts are considered to be potentially significant and the following mitigation measure is required to reduce impact to a less-than-significant level.

Mitigation Measure

AG-2. To minimize potential conflicts with adjacent agricultural operations, the Salinas Union High School District shall ensure that a barrier between the edge of the project site and adjacent agricultural areas is established through building placement and on-site and offsite fencing. Fencing and building placement shall be established prior to approval by the Division of the State Architect.

3.3 AIR QUALITY

This section identifies existing air quality conditions in the project site vicinity and North Central Coast Air Basin ("air basin"), identifies the sources and character of emissions from the proposed project, and identifies potential impacts and mitigation measures. Monitoring of the air basin is the responsibility of the Monterey Bay Unified Air Pollution Control District ("air district"). Accordingly, information in this section is drawn primarily from the air district's 2008 *CEQA Air Quality Guidelines* ("air quality guidelines") and the results of emissions modeling using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2. The results of the emissions modeling are found in Appendix D. No comments were received during the NOP process directly pertaining to potential air quality impacts of the proposed project.

Environmental Setting

The air basin lies along the central coast of California covering an area of approximately 5,159 square miles. The air basin is comprised of the following interconnected valleys: a portion of Santa Clara Valley, San Benito Valley, Salinas Valley, and Carmel Valley. The semi-permanent high-pressure cell in the eastern Pacific Ocean is the basic controlling factor in the climate of the air basin. In the summer, the high pressure cell is dominant and causes persistent west and

northwest winds over the entire California coast. Air descends in the Pacific high-pressure cell forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer air aloft acts as a lid to inhibit vertical air movement.

The generally northwest-southeast orientation of mountain ridges restricts and channels the summer on-shore air currents. Surface heating in the interior portion of the Salinas and San Benito valleys creates a weak low pressure, which intensifies the on-shore airflow during the afternoon and evening.

In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. The airflow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is held in place by the Pacific high-pressure cell, which allows pollutants to build up over a period of a few days. It is most often during this season that the north or east winds develop to transport pollutants from either the San Francisco Bay Area or the Central Valley into the air basin.

During the winter, the Pacific high-pressure cell migrates southward and has less influence on the air basin. Air frequently flows in a southeasterly direction out of the Salinas and San Benito valleys, especially during night and morning hours. Northwest winds are nevertheless still dominant in winter, but easterly flow is more frequent. The general absence of deep, persistent inversions and the occasional storm systems usually result in good air quality for the basin as a whole in winter and early spring.

Existing Air Quality Conditions

Existing air quality concerns within the air basin are primarily related to increases of regional criteria air pollutants (i.e., ozone and particulate matter); exposure of sensitive receptors to toxic air contaminants and odors.

Common Air Pollutants

The most common and widespread air pollutants of concern, or "criteria pollutants," include ozone, carbon monoxide, nitrogen oxides, particulate matter, reactive organic gasses, sulfur dioxide, and lead. The common properties, sources, and related health and environmental effects are summarized in Table 1, Common Air Pollutants. The primary pollutants of concern in Monterey County include ozone, carbon monoxide, and particulate matter 10 and 2.5 microns or less in size.

Pollutant	Properties	Major Sources	Related Health & Environmental Effects
Ozone (O ₃)	Created by the chemical reaction between oxides of nitrogen and volatile organic compounds (VOC) in the presence of heat and sunlight. Ground level ozone is the principal component of smog.	 Motor vehicle exhaust; Industrial emissions; Gasoline vapors; Chemical solvents. 	 Reduced lung capacity; Irritation of lung airways and inflammation; Aggravated asthma; Increased susceptibility to respiratory illnesses (i.e. bronchitis).
Suspended Particulate Matter (PM ₁₀)	Describes particles in the air, including dust, soot, smoke, and liquid droplets. Others are so small that they can only be detected with an electron microscope.	 Motor vehicles; Factories; Construction sites; Tilled farm fields; Unpaved roads; Wood burning. 	 Aggravated asthma; Increases in respiratory symptoms; Decreased lung function; Premature death; Reduced visibility.
Carbon Monoxide (CO)	Colorless, odorless gas that is formed when carbon in fuel is not burned completely.	 Fuel combustion; Industrial processes; Highly congested traffic. 	 Chest pain for those with heart disease; Vision problems; Reduced mental alertness; Death (at high levels)
Nitrogen Oxides (NO _x)	Generic form for a group of highly organic gases, all of which contain nitrogen in varying amounts. Many of the nitrogen oxides are odorless and colorless.	 Motor vehicles; Electric utilities; Industrial, commercial, and residential sources that burn fuel. 	 Toxic to plants; Reduced visibility; Respiratory irritant.
Sulfur Dioxides (SO _x)	Sulfur oxide gases are formed when fuel containing sulfur such as coal and oil is burned and when gasoline is extracted from oil, or metals are extracted from ore.	 Electric utilities (especially coal-burning); Industrial facilities that derive their products from raw materials to produce process heat. 	 Respiratory illness, particularly in children and the elderly; Aggravates existing heart and lung diseases.

Pollutant	Properties	Major Sources	Related Health & Environmental Effects
Reactive	Precursor of ground-level	 Petroleum transfer and 	 Potential carcinogen
Organic	ozone.	storage;	(e.g. benzene);
Gases		 Mobile sources; 	 Toxic to plants and
(ROG)		 Organic solvents. 	animals.

Source: Monterey Bay Unified Air Pollution Control District and U.S. EPA 2016.

Ozone and Related Compounds. Ozone is produced by chemical reactions, which are triggered by sunlight, involving nitrogen oxides and reactive organic gases. Nitrogen oxides are created during combustion of fuels, while reactive organic gases are emitted during combustion and evaporation of organic solvents. Since ozone is not directly emitted to the atmosphere, but is formed because of photochemical reactions, it is considered a secondary pollutant. Ozone is a seasonal problem, occurring roughly from April through October.

Ozone is a strong irritant that attacks the respiratory system, leading to the damage of lung tissue. Asthma, bronchitis, and other respiratory ailments, as well as cardiovascular diseases, are aggravated by exposure to ozone. A healthy person exposed to high concentrations may become nauseated or dizzy, may develop a headache or cough, or may experience a burning sensation in the chest. Research has shown that exposure to ozone damages the alveoli (the individual air sacs in the lung where the exchange of oxygen and carbon dioxide between the air and blood takes place). Research has shown that ozone also damages vegetation.

Calculating reactive organic gases and nitrogen oxides emissions from typical construction equipment is not necessary because temporary emissions of these ozone precursors have been accommodated in State- and federally-required air plans.

Sulfur Oxides. Sulfur oxides are gases formed when fuel containing sulfur, such as coal and oil, is burned, when gasoline is extracted from oil, or metals are extracted from ore. Sulfur oxides dissolve in water vapor to form acid, and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and their environment.

Nitrogen Dioxide. Nitrogen dioxide is a reddish-brown gas that can irritate the lungs and can cause breathing difficulties at high concentrations. Like ozone, nitrogen dioxide is not directly emitted, but is formed through a reaction between nitric oxides and atmospheric oxygen. Nitric oxides are a major contributor to ozone formation. Nitrogen dioxide also contributes to the formation of particulate matter (see discussion below). Nitrogen dioxide concentrations in the air basin have been well below ambient air quality standards; therefore, nitrogen dioxide concentrations from land use projects are not a concern.

Suspended Particulate Matter. Particulate matter is comprised of small, suspended particles, primarily composed of dust particles, nitrates, and sulfates. Particulate matter is classified as under 10 microns (PM_{10}) and under 2.5 microns ($PM_{2.5}$). PM_{10} is directly emitted to the atmosphere as a byproduct of fuel combustion, wind erosion of soil and unpaved roads, and from construction or agricultural operations. Small particles are also created in the atmosphere through chemical reactions. Approximately 64 percent of fugitive dust is PM_{10} . Minimal grading typically generates about 10 pounds per day per acre on average while excavation and earthmoving activities typically generate about 38 pounds per day per acre.

Although particles greater than 10 microns in diameter can cause irritation in the nose, throat, and bronchial tubes, natural mechanisms remove much of these particles. Particles less than 10 microns in diameter are able to pass through the body's natural defenses and the mucous membranes of the upper respiratory tract and enter into the lungs. The particles can damage the alveoli. The particles may also carry carcinogens and other toxic compounds, which can adhere to the particle surfaces and enter the lungs.

The air district's air quality guidelines consider emissions of 82 pounds per day or greater of PM_{10} from construction activity to be significant; this typically equates to general construction activity over an area of at least 8.1 acres per day, or grading/excavation over an area of at least 2.2 acres per day.

Carbon Monoxide. Carbon monoxide is a component of motor vehicle exhaust, which contributes about 56 percent of all carbon monoxide emissions nationwide. Other non-road engines and vehicles (such as construction equipment and boats) contribute about 22 percent of all carbon monoxide emissions nationwide. Carbon monoxide can cause harmful health effects by reducing oxygen delivery to the body's organs (like the heart and brain) and tissues. Carbon monoxide contributes to the formation of ground-level ozone.

Higher levels of carbon monoxide generally occur in areas with heavy traffic congestion. In cities, 85 to 95 percent of all carbon monoxide emissions may come from motor vehicle exhaust. Concentration of carbon monoxide is a direct function of vehicle idling time and, thus, traffic flow conditions. Transport of carbon monoxide is extremely limited; it disperses rapidly from the source under normal meteorological conditions. Under certain meteorological conditions, however, carbon monoxide concentrations close to a congested roadway or intersection may reach unhealthy levels, affecting local sensitive receptors (residents, school children, hospital patients, the elderly, etc.). Emissions thresholds established for carbon monoxide apply to direct or stationary sources.

Typically, high carbon monoxide concentrations are associated with roadways or intersections operating at unacceptable levels of service. Congested intersections with high volumes of traffic could cause carbon monoxide "hot spots," where localized high concentrations of carbon monoxide occur.

Lead. Lead was formerly a major air pollutant of concern. Levels of lead in the air decreased 94 percent between 1980 and 1999, following the removal of lead from gasoline. Today, the highest levels of lead in air are usually found near lead smelters and a few other industrial and utility plants.

Toxic Air Contaminants. Toxic air contaminants are pollutants that may be expected to result in an increase in mortality or serious illness or may pose a present or potential health hazard. Health effects include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death. Toxic air contaminants can be classified as either carcinogens or non-carcinogens. An incremental risk of ten excess cancer cases per million at the Maximally Exposed Individual would result in a significant impact. The ten-in-one-million risk level is 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.

Diesel Emissions. Diesel exhaust is the predominant toxic air contaminant in urban air and is estimated to represent about two-thirds of the cancer risk from toxic air contaminants. Diesel engines emit a complex mix of pollutants including nitrogen oxides, particulate matter, and toxic air contaminants. The most visible constituents of diesel exhaust are very small carbon particles or "soot," known as diesel particulate matter. Diesel exhaust also contains over 40 cancer-causing substances, most of which are readily adsorbed on the soot particles. Among the toxic air contaminants contained in diesel exhaust are dioxin, lead, polycyclic organic matter, and acrolein.

Short-term exposure to diesel particulate matter is associated with variable irritation and inflammatory symptoms. Diesel engine emissions are responsible for a majority of California's estimated cancer risk attributable to air pollution. In 2000, the California Air Resources Board (CARB) identified an average potential cancer risk of 540 excess cases per million people, statewide, from diesel particulate matter. In addition, diesel particulate matter is a significant fraction of California's particulate pollution. Assessments by CARB and United States Environmental Protection Agency (U.S. EPA) estimate that diesel particulate matter contributes to approximately 3,500 premature respiratory and cardiovascular deaths and thousands of hospital admissions annually in California. Diesel exhaust contains several chemicals detrimental to visibility and vegetation (Office of Environmental Health Hazard Assessment 2001).

Diesel exhaust is especially common during the grading stage of construction (when most of the heavy equipment is used), and adjacent to heavily trafficked roadways where diesel trucks are common. The risks of exposure to diesel particulate matter and potential health effects resulting from prolonged exposure are greater near high-volume freeways. U.S. EPA regulates diesel engine design and fuel composition at the federal level, and has implemented a series of

measures since 1994 to reduce nitrogen oxides and particulate emissions from off-road diesel equipment. EPA Tier 2 diesel engine standards were implemented from 2001 and 2006, Tier 3 standards from 2006-2008, and Tier 4 standards were phased in through 2015. Ultralow sulfur off-road diesel fuel, 15 parts per million (ppm) became standard in 2010, replacing the former 500 ppm fuel. The Tier 4 engines and ultralow sulfur fuels reduce emissions by up to 65 percent compared to older engines and fuel (U.S. EPA 2004, Clean Diesel Fuel Alliance 2013). California's Regulation for In-use Off-road Diesel Vehicles establishes a state program to reduce nitrogen oxides and particulate emissions from older construction equipment. Several provisions of the regulation are currently suspended (pertaining to fleet composition and vehicle retrofits), and some provisions are in force (idling restrictions and reporting). As the regulation is fully implemented, it will reduce construction equipment emissions over time (CARB 2010/2011).

Sensitive Receptors

Although air pollution can affect all segments of the population, certain groups are more susceptible to its adverse effects than others. Children, the elderly, and the chronically or acutely ill are the most sensitive population groups. These sensitive receptors are commonly associated with specific land uses such as residential areas, schools, parks, retirement homes, and hospitals.

In April 2005, CARB released the *Air Quality and Land Use Handbook*, which is intended to encourage local land use agencies to consider the risks from air pollution prior to making decisions that approve the siting of new sensitive receptors (e.g., schools, homes or daycare centers) near sources of air pollution. Unlike industrial or stationary sources of air pollution, siting of new sensitive receptors does not require air quality permits or approval by air districts, but could create air quality problems.

The project site and surrounding vicinity are currently used for agricultural purposes and no sensitive receptors are currently located on the project site or in its immediate vicinity. However, the site's future use as a middle school location and anticipated development in the Future Growth Area would represent sensitive receptors.

Other Emissions Sources

Other potential sources of concentrated air pollutant emissions potentially affecting sensitive receptors include stationary sources (power and industrial plants, large generators, etc.) and farming operations (chemical sprays). The project site includes and is adjacent to farmland, where agricultural chemicals may be used.

Construction Emissions

Emissions generated during construction are "short-term" in the sense that they would be limited to the actual periods of site development and construction. Short-term construction emissions are typically generated by the use of heavy equipment, the transport of materials, and construction employee commute trips. Construction-related emissions consist primarily of reactive organic gasses, nitrogen oxides, PM_{10} , and carbon monoxide. Emissions of reactive organic gasses, nitrogen oxides, and carbon monoxide are generated primarily by the operation of gas and diesel-powered motor vehicles, asphalt paving activities, and the application of architectural coatings. Emissions of PM_{10} are generated primarily by wind erosion of exposed graded surfaces.

Odors

Odors are generally regarded as an annoyance rather than a health hazard, although some odorous substances can be harmful at higher concentrations. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and the air district. Existing odor sources in the vicinity of the project site include occasional odors from surrounding agricultural operations.

Because offensive odors rarely cause any physical harm and no requirements for their control are included in state or federal air quality regulations, the air district does not regulate odor emissions other than through its nuisance rule. Any actions related to odors are based on citizen complaint. Potential odor sources near the project site include active agricultural parcels surrounding the project site.

Air Basin Attainment Status

In accordance with the Clean Air Act, CARB is required to designate regions of the state as attainment, non-attainment, or unclassified with regard to that region's compliance with criteria air pollutants standards. An "attainment" designation for a region signifies that pollutant concentrations do not violate the standard for that pollutant in that region. A "non-attainment" designation indicates that a pollutant concentration violated the standard at least once. An "unclassified" designation signifies that available data does not support either an attainment or non-attainment status. The California Clean Air Act divides designations into moderate, serious, and severe air pollution attainment categories, with increasingly stringent control requirements mandated for each category. The air basin is in non-attainment with state mandated thresholds

for ozone and suspended particulate matter. Table 2, Ambient Air Quality Attainment Status, identifies the current status within the air basin for each criteria pollutant.

Pollutant	State	Federal
Ozone (O ₃)	Non-attainment	Attainment/Unclassified
Suspended Particulates (PM ₁₀)	Non-attainment	Attainment
Fine Particulates (PM _{2.5})	Attainment	Attainment/Unclassified
Carbon Monoxide (CO)	San Benito Co – Unclassified	Attainment/Unclassified
Nitrogen Dioxide (NO ₂)	Attainment	Attainment/Unclassified
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Lead	Attainment	Attainment/Unclassified

 Table 2
 North Central Coast Air Basin Attainment Status Designations

Source: Monterey Bay Unified Air Pollution Control District 2015.

Ambient Air Quality

Ambient air pollutant levels are monitored at several monitoring stations in the air basin. Air quality monitoring stations usually measure pollutant concentrations ten feet above-ground level; therefore, air quality is often referred to in terms of ground-level concentrations.

Local ambient air quality in Monterey County is monitored by the air district. The air district monitoring station closest to the project site is located at Salinas High School, approximately 4.5 miles southwest of the project site.

Regulatory Setting

Federal Plans and Regulations

The federal Clean Air Act, adopted in 1970 and amended in 1990, provides the basis for federal air quality standards. The Clean Air Act is implemented by the U.S. Environmental Protection Agency. The Clean Air Act established two types of national air standards: primary and secondary. Primary standards set limits to protect public health, including the health of sensitive persons such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

State Plans and Regulations

The Lewis-Presley Air Quality Management Act, adopted in 1976 and amended in 1987, and the California Clean Air Act, adopted in 1988 and amended in 1992, provide the basis for air quality regulation in the state, particularly maintaining ambient air quality standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and particulate matter, collectively referred to as "criteria pollutants." The California Environmental Protection Agency Air Resources Board is responsible for coordinating air quality attainment efforts, setting standards, conducting research and creating solutions to air pollution.

Federal and State Standards for Criteria Air Pollutants

Ambient air quality is described in terms of compliance with the state and national standards. The state and federal clean air acts established two types of National Ambient Air Quality Standards for each criteria pollutant. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings (U.S. EPA 2001).

In general, criteria pollutants are pervasive constituents, such as those emitted in vast quantities by the combustion of fossil fuels. Both the state and federal governments have developed ambient air quality standards for the identified criteria pollutants, which include ozone, carbon monoxide, nitrogen oxides, sulfur dioxide, PM_{10} , and $PM_{2.5}$. Table 3, Federal and State Ambient Air Quality Standards, lists state and federal ambient air quality standards for criteria air pollutants. The state standards generally have lower thresholds than the federal standards, yet both are applicable to the proposed project. When thresholds are exceeded at regional monitoring stations, an "attainment plan" must be prepared that outlines how an air quality district will achieve compliance. Generally, these plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods.

State and Federal Hazardous Air Pollutant Standards

The EPA has established National Emission Standards for Hazardous Air Pollutants, which are regulated by source-specific rules. Examples of regulated sources include asphalt processing, boat manufacturing, chromium electroplating, coke ovens, dry cleaning, leather finishing, plywood manufacturing, polymer and resin manufacturing, and surface coating of various products. The standards for a particular source category require the maximum degree of emission reduction that the EPA determines to be achievable, which is known as the Maximum Achievable Control Technology.

Pollutant	Averaging	California Standards ¹		Federal Standards ²			
	Time	Concentration ³		Primary ^{3,4}		Secondary ^{3,5}	
		ppm	µg/m³	ppm	$\mu g/m^3$	ppm	$\mu g/m^3$
Ozone	1 Hour	0.09	180	-	-	-	-
	8 Hour	0.07	137	0.07	137	0.07	137
PM ₁₀ ⁶	24 Hour	-	50	-	150	-	150
	Annual	-	20	-	-	-	-
PM _{2.5} ⁶	24 Hour	-	-	-	35	-	35
	Annual	-	12	-	15	-	15
Carbon Monoxide	8 Hour	9	10	9	10	-	-
(CO)	1 Hour	20	23	35	40	-	-
Nitrogen Dioxide	Annual	0.030	57	0.053	100	0.053	100
$(NO_2)^7$	1 Hour	0.18	339	100	188	-	-
Sulfur Dioxide (SO ₂) ⁸	Annual	-	-	0.030	See note ¹⁰	-	-
	24 Hour	0.04	105	0.14	See note ¹⁰	-	-
	3 Hour	-	-	-	-	0.5	1,300
	1 Hour	0.25	655	0.075	196	-	-
Lead ^{9,10}	30 Day Average		1.5	-	-	-	-
	3 month revolving	-	-		0.15		0.15
	Calendar Quarter	-	-	See note ¹⁰	1.5	See note ¹⁰	1.5
Visibility Reducing Particles ¹¹	8 Hour	See	note ¹¹	No Fede	eral Stand	ards	1
Sulfates	24 Hour		25				
Hydrogen Sulfide	1 Hour	0.03	42				
Vinyl Chloride ⁹	24 Hour	0.01	26				

Table 3Federal and State Ambient Air Quality Standards

Source: California Air Resources Board 2015. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Notes:

- California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM₁₀, PM_{2.5}, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- 2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10} , the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μ g/m³ is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
- 3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- 5. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- 6. On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 7. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- 8. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- 9. The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 10. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 μ g/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- 11. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

The Toxic Air Contaminant Identification and Control Act (AB 1807, Tanner 1983) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, Connelly 1987) supplements the AB 1807 program, by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

Under AB 1807, CARB is required to use certain criteria in the prioritization for the identification and control of air toxics. In accordance with California Health and Safety Code section 39666(f), CARB must consider criteria relating to "the risk of harm to public health, amount or potential amount of emissions, manner of, and exposure to, usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community." AB 1807 also requires CARB to use available information gathered from the AB 2588 program to include in the prioritization of compounds.

The Office of Environmental Health Hazard Assessment assists CARB by developing the health assessment part of the toxic air contaminants identification documents; reviews facility risk assessments for the "Hot Spots" Program; is developing new risk assessment guidelines for the "Hot Spots" Program; and is the lead agency for Proposition 65. The Department of Pesticide Regulation regulates toxic air contaminants that are also pesticides. No quantified concentration thresholds are established, because the state has determined there is insufficient available scientific evidence to support the identification of a threshold exposure level. The air district has not identified any "Hot Spots" in San Benito County.

Monterey Bay Unified Air Pollution Control District

The air district is the regional agency with responsibility for monitoring air quality and achieving attainment of state and federal standards in the three Monterey Bay counties. The air district exercises its jurisdiction within the air basin. The air district is charged with regulatory authority over stationary sources of air emissions, monitoring air quality within the air basin, providing guidelines for analysis of air quality impacts pursuant to CEQA, and preparing an air quality management plan to maintain or improve air quality in the air basin.

Air Quality Management Plan. The air district is delegated with local responsibility to implement both federal and state mandates for improving air quality in the air basin through implementation of an air quality plan. The air district adopted the *Air Quality Management Plan for the Monterey Bay Region* ("AQMP") in 1991 and completed several updates in subsequent years, most recently in 2013. The AQMP presents measures to control emissions of volatile organic compounds from stationary and mobile sources in order to meet the ozone standard mandated by the California Clean Air Act. In 2006 the air resources board made the ambient air quality standards more stringent by adding an 8-hour ozone average to the standard.

Air District CEQA Air Quality Guidelines (2008). The purpose of the air district air quality guidelines is to inform public agencies, consultants, project proponents and the general public of the air district's adopted thresholds of significance and to provide guidance in the review and evaluation of air quality impacts of projects that are subject to CEQA. The air quality guidelines are intended to provide uniform procedures for assessing air quality impacts and preparing the air quality section of environmental documents. They are also intended to help streamline the CEQA review process for project proponents, lead agencies, and the air district.

Standards of Significance

CEQA Guidelines appendix G indicates that a project may have a significant effect on the environment if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Analysis, Impacts and Mitigation

Emissions Modeling

The air district recommends the use of the CalEEMod emissions estimator model for proposed projects that exceed screening thresholds contained in the air quality guidelines. The CalEEMod program estimates both project mobile-source and operational emissions, including vehicular, direct, and indirect emissions. The model also estimates greenhouse gas emissions from land development projects. The model contains default data for vehicular emissions (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) provided by various California air districts to account for local requirements and conditions. Direct emissions include natural gas combustion associated with the heating of water and space, along with the emissions from use of gas-powered landscape equipment. Indirect emissions include off-site generation of electricity, and off-site processes associated with the land use, such as water treatment and delivery.

Vehicular emission rates of volatile organic compounds and nitrogen oxides are sensitive to the year of analysis because emissions rates are decreasing as vehicles with more effective emission controls dominate the fleet mix. The anticipated operational year for the analysis is 2018.

Model inputs include air basin information from the air district, project-related inputs based upon the amount and type of existing and proposed land uses. Detailed CalEEMod results are presented in Appendix D. Model results for criteria pollutants, including ozone, nitrogen oxides, carbon monoxide, and suspended particulate matter, are summarized in the following discussion of impacts and mitigation measures.

Environmental Topics Eliminated from Further Consideration

Conflict with an Air Quality Plan. The proposed project would result in the construction of a middle school and a parking lot and would not result in an increase in population. According to Alan Romero, air quality planner with the Monterey Bay Unified Air Pollution Control District (hereinafter "Air District"), the proposed project would be consistent with the Air Quality Management Plan that was adopted in 1992 (latest revision June 2008) (telephone conversation, August 24, 2011). The proposed project would not conflict or obstruct the implementation of the applicable air quality plan.

Pollutant Concentrations. There are no known pollutant concentrations on the project site or within its immediate surrounding vicinity. Furthermore, there are no sensitive receptors located within the immediate vicinity of the project site (i.e. within 0.25 miles from the project site), and the proposed project would not generate significant pollutant concentrations. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Odors. As the proposed project is the construction and operation of a middle school on the project site, the proposed project would not create objectionable odors affecting a substantial number of people.

IMPACT: THE OPERATIONAL PHASE OF THE PROJECT WOULD RESULT IN NEW SOURCES OF EMISSIONS (LESS THAN SIGNIFICANT)

The operational phase of the proposed project would result in new sources of mobile (indirect) and operational (direct) emissions. The CalEEMod modeling results are summarized in Table 4, CalEEMod Operational Modeling Results (Pounds per Day). The complete results are presented in Appendix D.

	Volatile Organic Compounds (ROG)	Nitrogen Oxides (NOX)	Suspended Particulate Matter (PM ₁₀)	Carbon Monoxide (CO)
Summer (unmitigated)	31.84	14.65	8.02	63.60
Winter (unmitigated)	32.45	16.43	8.02	77.45
Air District Thresholds	137	137	82	550

 Table 4
 CalEEMod Operational Modeling Results (Pounds per Day)

Source: Monterey Bay Unified Air Pollution Control District and EMC Planning Group Inc. 2015.

As shown in Table 4, CalEEMod Operational Modeling Results (Pounds per Day), the proposed project would not result in unmitigated operational emissions that exceed the air district thresholds for ROG, PM_{10} and CO. Therefore, the proposed project would not generate emissions that exceed air district thresholds, would not contribute significantly to regional air quality violations, and would not conflict with the AQMP. Emissions associated with the proposed project would, therefore, be less than significant and no mitigation is required.

IMPACT: THE CONSTRUCTION PHASE OF THE PROJECT WOULD RESULT IN NEW SOURCES OF EMISSIONS (LESS THAN SIGNIFICANT WITH MITIGATION)

Emissions resulting from construction activities associated with the proposed project may result in a potentially significant impact as a result of exposure of people or structures downwind of the project site to dust or suspended particulates, including PM_{10} and diesel particulate emissions. Construction activities on the site may increase exposures of existing residences located along East Boronda Road or Old Stage Road. Although these residences are not located in the immediate vicinity of the project site (i.e. they are located a greater distance than 0.25 miles from the site) there is the potential to impact these residences. The following standard air district construction mitigation measures shall be implemented during construction activities to reduce the potential impact to a less than significant level.

Mitigation Measures

AQ-1. The following mitigation measures will be implemented during construction activities, and included as contractual conditions by and between the Salinas Union High School

District and the selected construction company, for the purpose of reducing PM_{10} emissions during site preparation and construction, as well as related improvements, of the new middle school:

- a. Best management practices for dust control will be implemented, included, but not limited to, watering the site as necessary to minimize dust, visible emissions and off-site drift;
- b. When possible, perform grading activities during morning hours when winds are generally calmer, and prohibit grading activities during periods of high wind speed (over 15 mph);
- c. All trucks hauling dirt, sand, or loose materials shall be covered;
- d. Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402 (Nuisance);
- AQ-2. Prior to commencement of earth-disturbing activities, the Salinas Union High School District will prepare and implement a Construction Emissions Reduction Plan per Monterey Bay Unified Air Pollution Control District guidelines to reduce construction-generated fugitive and mobile-source emissions. The Construction Emissions Reduction Plan shall include, but not be limited to, the following:
 - a. Installation of temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. compressors);
 - b. Diesel equipment standing idle for more than two minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite and staged away from residential areas;
 - c. Properly tune and maintain equipment for low emissions; and
 - d. Stage large diesel powered equipment at least 200 feet from any active land uses (e.g., residences).

Actions contained in the Construction Emissions Reduction Plan shall be included as contractual conditions by and between the proponent and any contractors, and by and between any other party who may construct commercial buildings and the contractors of those parties for the purpose of reducing diesel emissions during site preparation and construction.

IMPACT: THE PROJECT WOULD CONTRIBUTE TO A MINOR NET INCREASE OF CRITERIA POLLUTANTS FOR WHICH THE AIR BASIN IS IN NON-ATTAINMENT (LESS THAN SIGNIFICANT)

Implementation of the proposed project would result in increased emissions of ROG, NO_x , PM_{10} , and CO. However, based on CalEEMod air quality modeling prepared for the proposed project, emissions from project development would not exceed air district thresholds. Therefore, project-related emissions would not be cumulatively considerable and potential impacts would be less than significant.

3.4 **BIOLOGICAL RESOURCES**

This section addresses existing biological resources located on the project site or in the project vicinity; the federal, state, and local regulatory framework pertaining to biological resources; and an evaluation of anticipated impacts to biological resources as a result of the proposed project. This evaluation is based on a biological reconnaissance field survey conducted by the consultant's biologists; a review of existing scientific literature, aerial photographs, technical background information; and policies and programs applicable to projects located in the City of Salinas and the County of Monterey. Due to the potential presence of special status amphibians, a secondary assessment was completed, titled *Habitat Assessment Report for the California Tiger Salamander, and California Red-Legged Frog, Salinas New Middle School Project, City of Salinas* ("Habitat Assessment," Appendix E, EMC Planning Group 2015).

There were no comments regarding biological resources submitted in response to the NOP.

Environmental Setting

Project Site

The proposed project is located within the Salinas U.S. Geological Survey (USGS) quadrangle, within the Central Western California region, Central Coast sub-region, where coastal vegetation predominates, but chaparral and other non-coastal vegetation also occur (Baldwin 2012). The climate in the area is Mediterranean, with warm and dry summers, and winters tending to be cool and wet. Most of the annual rainfall occurs between the months of December and March.

The consultant's biologists conducted a biological reconnaissance field survey on August 18, 2015 to document existing plant communities/wildlife habitats and evaluate the potential for special-status species to occur in the project area. On October 29, 2015, a one-day field survey

was conducted to complete a habitat assessment for special-status amphibians. Biological resources were documented in field notes, including species observed, dominant plant communities, and significant wildlife habitat characteristics. Qualitative estimations of plant cover, structure, and spatial changes in species composition were used to determine plant communities and wildlife habitats, and habitat quality and disturbance level were described.

A search of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) was conducted for the Moss Landing, Prunedale, San Juan Bautista, Marina, Salinas, Natividad, Seaside, Spreckels, and Chualar USGS quadrangles in order to evaluate potentially occurring special-status plant and animal species in the project vicinity (CDFW 2015). Records of occurrence for special-status plants were reviewed for those same USGS quadrangles in the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2015). A U.S. Fish and Wildlife Service (USFWS) threatened and endangered species list was also generated for Monterey County (USFWS 2015a). Special-status species in this report are those listed as Endangered, Threatened, or Rare, or as candidates for listing by the USFWS and/or CDFW; or as special-status by the CNPS (Rare Plant Rank 1B or 2). The project location was also reviewed in the USFWS National Wetlands Inventory (USFWS 2015b).

The project site is located in the Salinas Valley, within the lower portion of the Salinas River watershed. It is located northeast of the corner of East Boronda Road and Natividad Road in the City of Salinas within the County of Monterey. Topography at the site is generally flat. The project site is currently in agricultural production for both chard and strawberries. The only structures on the project site include irrigation system structures (e.g. a well, a pump, and irrigation piping) and barbed wire fencing. There is one irrigation ditch in the northern portion of the project site that flows into Natividad Creek. The ditch is delineated on the USFWS National Wetlands Inventory map as riverine. The ditch ends at the junction of a pump and underground irrigation system consisting of a lattice of irrigation pipes, which provide water to the agricultural production area.

The project site is located between Gabilan Creek and Natividad Creek. Gabilan Creek runs north-south approximately 0.7 miles east of the project site, and Natividad Creek runs north-south approximately 0.25 miles west of the project site. Some portions of Natividad Creek have been converted to agricultural ditches within the agricultural production area, and other portions retain a natural flow. Both Gabilan and Natividad creeks are surrounded by disturbed upland habitats with row crops planted up to the edge of the riparian apart from the areas with non-native grassland shown in Figure 5, Habitat Map, of the Habitat Assessment. There are irrigation and drainage ditches that flow into Gabilan Creek and Natividad Creek in the vicinity of the project site. Some of these ditches are listed on the USFWS National Wetlands Inventory as 'riverine' or 'freshwater emergent wetland.'

As shown in Figure 2 of the Habitat Assessment, properties surrounding the project site are in agricultural production. The only roads within a half-mile of the project site are private unpaved dirt roads that provide access to the project site and adjacent properties. Residential uses and urban development and infrastructure associated with the City of Salinas extend southward from Boronda Road to the south of the site.

Plant Communities

The project site is entirely within an agricultural production area with intensive agricultural production primarily of strawberries and chard. Ruderal patches of vegetation with horseweed *(Conyza canadensis)*, bristly ox-tongue (*Helminthotheca echioides*), wild radish (*Raphinus sativus*), wild oats (*Avena* spp.) and other common non-native species were present on the margins of fields.

Wildlife Habitats

The overall quality of wildlife habitat at the site is low due primarily to its agricultural setting, which exhibits a high degree of regular disturbance. Specific habitat present is characterized as agricultural and ruderal (i.e. disturbed areas containing sparse, weedy vegetation). Agricultural/ruderal habitats occur in areas in which the native vegetation has been removed by grazing, grading, cultivation, or other surface disturbances. Though the margins of these lands can offer access to food and water for some species, they tend to lack a cover component that would enable most wildlife species to safely nest, forage, and escape from predators. Small mammals, such as California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*) may use agricultural/ruderal habitats within the site as a refuge within the surrounding development.

Wetlands and Waters of the U.S.

The United States Army Corps of Engineers (USACE) regulates impacts to two general categories of aquatic features: wetlands and waters of the U.S. Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Waters of the U.S. are tributaries of and waters utilized for interstate or foreign commerce as well as all other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce.

A drainage ditch listed on the national wetlands inventory as riverine flows through the northern portion of the site. This drainage ditch is a v-ditch that appears to be maintained as part of

farming operations. At its uppermost terminus, the drainage ditch ends at an aboveground pump station. From the pump station, it flows to the east through the farm fields and diverges into two agricultural canals that join Natividad Creek. Natividad Creek is part of the Salinas River watershed, which empties to the Pacific Ocean at Monterey Bay. Although wetland vegetation was not identified within the drainage ditch on the site, the feature is likely considered jurisdictional by the USACE as a Waters of the U.S.

No other aquatic habitats were found within the project boundaries or access route.

Special-Status Species

Special-status species are defined as any species which is officially listed, or a proposed candidate for listing, as rare, threatened, or endangered by the USFWS, National Marine Fisheries Service, and/or CDFW under the state and/or federal Endangered Species Acts. This designation also includes CDFW Species of Special Concern and Fully Protected species, CNPS Rare Plant Rank 1B and 2 species, and other locally rare species that meet the criteria for listing as described in Section 15380 of CEQA Guidelines.

Special-status species are generally rare, restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring. Table 5, Special-Status Plants Potentially Occurring in the Project Vicinity, and Table 6, Special-Status Wildlife Potentially Occurring in the Project Vicinity, show special-status species documented within the project vicinity (i.e. the Moss Landing, Prunedale, San Juan Bautista, Marina, Salinas, Natividad, Seaside, Spreckels, and Chualar USGS quadrangles), their listing status and suitable habitat description, and their potential to occur in locations proposed for each alternative. Information regarding several of these protected species follows these tables.

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Alkali milk- vetch (<i>Astragalus tener</i> var. <i>tener</i>)	//1B.2	Alkaline sites in playas, valley and foothill grassland (on adobe clay), and vernal pools; elevation 1-60m. Blooming Period: March - June	No potential to occur
Beach layia (<i>Layia carnosa</i>)	FE/SE/1B.1	Coastal dunes, hugely reduced in range along California's north coast dunes, on sparsely vegetated semi-stabilized dunes,	No potential to occur

Table 5	Special-Status Plant S	pecies with the Potential to	o Occur in the Project Vicinity
I ubic 5	opectal blacas I fame b	pecies with the i otential t	b Occur in the Hoject Vienney

Species	Status (Federal/	Suitable Habitat Description	Potential to Occur on
	State/CNPS)	usually behind foredunes; elevation 0-75m.	Project Site
		Blooming Period: March - July	
California jewelflower (<i>Caulanthus</i> <i>californicus</i>)	FE//1B.1	Nonnative grassland, upper Sonoran subshrub scrub, and cismontane juniper woodland and scrub, valley saltbush scrub, elevation 75-900m. Blooming Period: February - May	No potential to occur
Carmel Valley bush-mallow (<i>Malacothamnus</i> <i>palmeri</i> var. <i>involucratus</i>)	//1B.2	Chaparral, cismontane woodland, coastal scrub; elevation 30-1100m. Blooming Period: May - October	No potential to occur
Carmel Valley malacothrix (<i>Malacothrix</i> saxatilis var. arachnoidea)	//1B.2	Chaparral (rocky); elevation 25-335m. Blooming Period: March - December	No potential to occur
Choris' popcorn-flower (<i>Plagiobothrys</i> <i>chorisianus</i> var. <i>chorisianus</i>)	//1B.2	Chaparral, coastal scrub, coastal prairie, mesic sites; elevation 15-100m. Blooming Period: March - June	No potential to occur
Coast wallflower (<i>Erysimum</i> <i>ammophilum</i>)	//1B.2	Maritime chaparral, coastal dunes, coastal scrub, sandy openings; elevation 0 – 60m. Blooming Period: February - June	No potential to occur
Coastal dunes milkvetch (<i>Astragalus tener</i> var. <i>titi</i>)	FE/SE/1B.1	Coastal bluff scrub, coastal dunes. Known only from a few extant occurrences, mostly historical in Southern California. Moist sandy depressions of bluffs or dunes along and near the Pacific Ocean, one site on a clay terrace; elevation 1-50m. Blooming Period: March - May	No potential to occur

Species	Status (Federal/	Suitable Habitat Description	Potential to
	State/CNPS)		Project Site
Congdon's tarplant (<i>Centromadia</i> parryi spp. congdonii)	//1B.1	Valley and foothill grassland (alkaline); elevation 1-230m. Known to occur on various substrates, and in disturbed and ruderal (weedy) areas. Blooming Period: June - November	Potential to occur along northern shoulder of E. Boronda Road at junction with Hemingway Drive, and very low potential to occur in on- site ditch; not observed during 2016 focused plant survey – not present in proposed project impact areas
Contra Costa goldfields (<i>Lasthenia</i> <i>conjugens</i>)	FE//1B.1	Wet areas in cismontane woodland, playas (alkaline), valley and foothill grassland, and vernal pools; elevation 0-470m. Blooming Period: March - June	No potential to occur
Eastwood's goldenbush (<i>Ericameria</i> <i>fasciculata</i>)	//1B.1	Closed cone coniferous forest, chaparral (maritime), coastal dunes, and coastal scrub/sand. Blooming Period: July - October	No potential to occur
Fragrant fritillary (<i>Fritillaria</i> <i>liliacea</i>)	//1B.2	Coastal scrub, valley and foothill grassland, and coastal prairie. Often on serpentine; various soils reported though usually clay in grassland; elevation 3- 410m. Blooming Period: February - April	No potential to occur

Species	Status	Suitable Habitat Description	Potential to
	(Federal/		Occur on Project Site
Gowen cypress (<i>Cupressus</i> goveniana ssp. goveniana)	FT//1B.2	Closed cone coniferous forest. Narrowly endemic to Monterey County. Coastal terraces, usually in sandy soils, sometimes with Monterey pine, Bishop pine; elevation 100-125m. Evergreen	No potential to occur
Hickman's potentilla (<i>Potentilla</i> <i>hickmanii</i>)	FE/SE/1B.1	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, marshes and swamps, small streams in open or forested areas along the coast; elevation 5-125m. Blooming Period: April - August	No potential to occur
Hickman's onion (<i>Allium</i> <i>hickmanii</i>)	//1B.2	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland, coastal prairie, sandy loam, damp ground and vernal swales; elevation 20-200m. Blooming Period: April - May	No potential to occur
Hooker's manzanita (<i>Arctostaphylos</i> <i>hookeri</i> ssp. <i>hookeri</i>)	//1B.2	Sandy soils in coastal scrub, chaparral, and closed-cone forest habitats; evergreen; elevation 45-215m. Blooming Period: February - April	No potential to occur
Hospital Canyon larkspur (<i>Delphinium</i> <i>californicum</i> ssp. <i>interius</i>)	//1B.2	Cismontane woodland and chaparral, in wet, boggy meadows, openings in chaparral, and in canyons; elevation 225- 1060m. Blooming Period: April - June	No potential to occur
Hutchinson's larkspur (<i>Delphinium</i> <i>hutchinsoniae</i>)	//1B.2	Broadleaved upland forest, chaparral, coastal prairie, coastal scrub; elevation 0- 400m. Blooming Period: March - June	No potential to occur
Jolon clarkia (<i>Clarkia</i> jolonensis)	//1B.2	Cismontane woodland, chaparral, coastal scrub; elevation 20-660m. Blooming Period: April - June	No potential to occur

Species	Status	Suitable Habitat Description	Potential to
	(Federal/		Occur on
	State/CNPS)		Project Site
Kellogg's horkelia (Horkelia cuneata ssp. sericea)	//1B.1	Closed-cone coniferous forest, maritime chaparral, coastal scrub, sandy or gravelly openings; elevation 10-200m. Blooming Period: April - September	No potential to occur
Legenere (<i>Legenere limosa</i>)	//1B.1	In beds of vernal pools; elevation 1-880m. Blooming Period: April - June	No potential to occur
Marsh microseris (<i>Microseris</i> paludosa)	//1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland; elevation 5-300m. Blooming Period: April - June	No potential to occur
Marsh sandwort (<i>Arenaria</i> paludicola)	FE/CE/1B.1	Sandy openings, marshes and swamps (freshwater or brackish); elevation 3-170m. Blooming Period: May - August	No potential to occur
Menzies's wallflower (<i>Erysimum</i> <i>menziesii</i>)	FE/SE/1B.1	Coastal dunes. Known only from Mendocino and Monterey Counties, localized on dunes and coastal strand; elevation 0-35m. Blooming Period: March - June	No potential to occur
Monterey clover (<i>Trifolium</i> <i>trichocalyx</i>)	FE/SE/1B.1	Closed-cone coniferous forest, endemic to Monterey County. Poorly drained, low nutrient soil underlain with hardpan soils, also openings and burned areas; elevation 120-205. Blooming Period: April - June	No potential to occur
Monterey manzanita (Arctostaphylos montereyensis)	//1B.2	Maritime chaparral, cismontane woodland, coastal scrub, sandy; elevation 30-730m. Blooming Period: February – March	No potential to occur
Monterey pine (<i>Pinus radiata</i>)	//1B.1	Closed-cone coniferous forest, cismontane woodland; elevation 25-185m. Evergreen	No potential to occur
Monterey spineflower	FT//1B.2	Sandy openings in maritime chaparral, cismontane woodland, coastal dunes,	No potential to occur

Species	Status	Suitable Habitat Description	Potential to
	(Federal/		Occur on
	State/CNPS)		Project Site
(Chorizanthe		coastal scrub, and valley and foothill	
<i>pungens</i> var.		grassland; elevation 3-450m. Blooming	
pungens)		Period: April - June	
Northern curly-	//1B.2	Coastal dunes, coastal scrub, chaparral,	No potential
leaved		lower montane coniferous forest. Sandy	to occur
monardella		soils, elevation 0-300m. Blooming Period:	
(Monardella		April - September	
<i>sinuata</i> ssp.			
nigrescens)			
Pacific Grove	/SR/1B.1	Closed-cone coniferous forest, coastal	No potential
clover		prairie, meadows and seeps, valley and	to occur
(Trifolium		foothill grassland, mesic; elevation 5-	
polyodon)		120m. Blooming Period: April - June	
Pajaro	//1B.1	Sandy soils in chaparral habitat; evergreen;	No potential
manzanita		elevation 30-760m. Blooming Period:	to occur
(Arctostaphylos		December - March	
pajaroensis)			
Pine rose	//1B.2	Closed-cone coniferous forest; elevation 2-	No potential
(Rosa pinetorum)		300m. Blooming Period: May - July	to occur
Pink Johnny-	/1B.1	Coastal bluff scrub, coastal prairie:	No potential
nip		elevation 0-100m. Blooming Period: May -	to occur
(Castilleia		August	
<i>ambigua</i> var.			
insalutata)			
Pinnacles	//1B 3	Sandy sites in chaparral and valley and	No potential
buckwheat		foothill grassland, often on recent burns:	to occur
(Eriogonum		elevation 300-975m. Blooming Period:	
nortonii)		May - June	
Purple amole	FT//1B.1	Cismontane woodland, valley and foothill	No potential
(Chlorogalum		grassland. Often in grassy areas with blue	to occur
<i>purpureum</i> var.		oaks in foothill woodland; elevation 300-	
purpureum)		330m. Blooming Period: May - June	

Species	Status	Suitable Habitat Description	Potential to
	(Federal/		Occur on
	State/CNPS)		Project Site
Robust monardella (<i>Monardella</i> <i>villosa</i> ssp. globosa)	//1B.2	Broadleaved upland forest, chaparral, cismontane woodland, valley and foothill grassland. Openings; elevation 30-3000m. Blooming Period: June - July	No potential to occur
Robust spineflower (Chorizanthe robusta var. robusta)	FE//1B.1	Sandy or gravelly openings in cismontane woodland, coastal dunes, and coastal scrub; prefers sandy terraces and bluffs or loose sand; elevation 3-300m. Blooming Period: April - July	No potential to occur
Round-leaved filaree (<i>California</i> macrophylla)	//1B.1	Clay sites in cismontane woodland, and valley and foothill grassland; elevation 15- 1200m. Blooming Period: March - May	No potential to occur
Saline clover (<i>Trifolium</i> hydrophilum)	//1B.2	Marshes and swamps, valley and foothill grassland, and vernal pools. Prefers wet, alkaline sites; elevation 0-300m. Blooming Period: April - June	No potential to occur
San Francisco popcornflower (<i>Plagiobothrys</i> <i>diffusus</i>)	/SE/1B.1	Valley and foothill grassland, coastal prairie. Historically from grassy slopes with marine influence; elevation 60-485m. Blooming Period: March - June	No potential to occur
Monterey gilia (<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>)	FE/ST/1B.2	Maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, sandy openings; elevation 0-45m. Blooming Period: April - June	No potential to occur
Sandmat manzanita (<i>Arctostaphylos</i> pumila)	//1B.2	Closed cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, sandy openings; elevation 30-730m. Blooming Period: February - May	No potential to occur
Santa Cruz clover	//1B.1	Broadleaved upland forest, cismontane woodland, and coastal prairie; prefers	No potential to occur

Species	Status (Federal/	Suitable Habitat Description	Potential to Occur on
	State/CNPS)		Project Site
(Trifolium buckwestiorum)		moist grassland and gravelly margins; elevation 105-610m. Blooming Period: April - October	
Santa Cruz microseris (<i>Stebbinsoseris</i> <i>decipiens</i>)	//1B	Broadleaved upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland, open areas, sometimes serpentine; elevation 10-500m. Blooming Period: April - May	No potential to occur
Santa Cruz tarplant (<i>Holocarpha</i> <i>macradenia</i>)	FT/SE/1B.1	Coastal prairie, coastal scrub, and valley and foothill grassland; often on clay or sandy soils; elevation 10-220m. Blooming Period: June - October	No potential to occur
Santa Lucia bush-mallow (<i>Malacothamnus</i> <i>palmeri</i> var. <i>palmeri</i>)	//1B.2	Chaparral. Dry rocky slopes, mostly near summits, but occasionally extending down canyons to the sea; elevation 60-365m. Blooming Period: May - July	No potential to occur
Seaside bird's- beak (<i>Cordylanthus</i> <i>rigidus</i> ssp. <i>littoralis</i>)	/SE/1B.1	Closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, sandy often disturbed sites; elevation 0-215m. Blooming Period: May - October	No potential to occur
Tidestrom's lupine (Lupinus tidestromii)	FE/SE/1B.1	Partially stabilized dunes, immediately near the ocean; elevation 0-3m. Blooming Period: April - June	No potential to occur
Umbrella larkspur (<i>Delphinium</i> umbraculorum)	//1B.2	Cismontane woodland, mesic sites; elevation 400-1600m. Blooming Period: April - June	No potential to occur

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description		Potential to Occur on Project Site
Vernal pool bent grass (<i>Agrostis lacuna-</i> <i>vernalis</i>)	//1B.1	Vernal pools (mima mounds); elevation 115-145m.	L	No potential to occur
Woodland woollythreads (<i>Monolopia</i> gracilens)	//1B.2	Serpentine, open sites in broadleaved upland forest, chaparral, cismontane woodland, North Coast coniferous fore and valley and foothill grassland; elevat 100-1200m. Blooming Period: March - July	st, ion	No potential to occur
Yadon's rein orchid (<i>Piperia yadonii</i>)	FE//1B.1	Sandy sites in coastal bluff scrub, closed cone coniferous forest, maritime chapar elevation 10-510m. Blooming Period: M - August	l ral; Iay	No potential to occur
Alkali milk- vetch (<i>Astragalus tener</i> var. <i>tener</i>)	//1B.2	Alkaline sites in playas, valley and foot grassland (on adobe clay), and vernal pools; elevation 1-60m. Blooming Peric March - June	hill od:	No potential to occur
Communities				
Central Dune Scrub Not			t present	
Central Maritime Chaparral Not			t present	
Coastal and Valley Freshwater Marsh Not			t present	
Coastal Brackish Marsh No			t present	
Monterey Pine Forest No			t present	
Northern Coastal Salt Marsh Nor			t present	
Valley Needlegrass Grassland Not present				

Listing Status Codes:

Federal (USFWS)

FE - Listed as Endangered under the Federal Endangered Species Act.

FT - Listed as Threatened under the Federal Endangered Species Act.

FC – Candidate for listing under the Federal Endangered Species Act.

State (CDFW)

- SE Listed as Endangered under the California Endangered Species Act.
- ST Listed as Threatened under the California Endangered Species Act.
- SR Listed as Rare under the California Endangered Species Act.
- SC Candidate for listing under the California Endangered Species Act.
- CNPS Rare Plant Ranks and Threat Code Extensions
- 1B: Plants that are considered Rare, Threatened, or Endangered in California and elsewhere.
- 2B: Plants that are considered Rare, Threatened, or Endangered in California, but more common elsewhere.
- .1: Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).
- .2: Fairly endangered in California (20-80% occurrences threatened).
- .3: Not very threatened in California (less than 20% of occurrences threatened low degree and immediacy of threat or no current threats known).

Special-Status Plants. Because the project site is predominantly disturbed by agricultural operations, the proposed areas of impact provide limited habitat that could support special-status plants known to occur in the vicinity. However, Congdon's tarplant, considered special-status by the CNPS, has potential to occur in the on-site ruderal (weedy) drainage ditch, and in the non-native grassland habitat of an off-site improvement area along the northern road shoulder of East Boronda Road (on both sides of the intersection with Hemingway Drive).

Congdon's Tarplant. The CNPS rare plant rank 1B Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*) occurs on a range of substrates, and is tolerant of disturbed and ruderal (weedy) areas. In the vicinity of Salinas, it occurs in patches of non-native grassland. This low-growing annual herb is most observable during its peak blooming period, from late summer to early fall. CNPS rare plant rank 1B species are considered rare, threatened, or endangered in California and elsewhere. Impacts to such species require mitigation under CEQA, because all CNPS 1B species meet the definitions of Sections 2062 and 2067 of the California Fish and Game Code pertaining to the California Endangered Species Act, and are considered eligible for state listing.

A Congdon's tarplant population is present in disturbed non-native grassland habitat about onehalf mile southeast of the project site. In addition to this occurrence, CNDDB records have documented this species from 1992 to 2002 as occurring at eight locations in the project vicinity within five miles of the site, to the north, northeast, east, southeast, south, and west of the site.

The absence of Congdon's tarplant was therefore confirmed through an August 9, 2016 focused plant survey conducted by EMC Planning Group senior biologist Andrea Edwards in all nonnative grassland and ruderal (weedy) habitats in proposed project impact areas. A nearby Congdon's tarplant reference population located about two miles from the project site was checked on the survey date to confirm that the species was observable at the time of survey and in peak bloom. During the focused plant survey, all suitable and marginally suitable habitats in the proposed impact areas were systematically surveyed, and all plant species observed were recorded in field notes. Congdon's tarplant was not observed in the project impact areas during the survey, and focused plant survey results are generally considered valid for about five years.

Special-Status Wildlife. The site contains agricultural land with patches of ruderal (weedy) vegetation. At the time of survey, the site was mainly disturbed and provided only marginally functional wildlife habitat. Table 6, Special-Status Wildlife Potentially Occurring in the Project Vicinity, shows special-status wildlife species documented within the project vicinity, their listing status and suitable habitat description, and their potential to occur on the site.

Species	Status (Federal/ State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
American badger (<i>Taxidea taxus</i>)	/SSC	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats. Need sufficient food and open, uncultivated ground with friable soils to dig burrows. Prey on burrowing rodents.	Not expected to occur. Suitable habitat not present on site.
Arroyo toad (Bufo californicus)	FE/SSC	Semi-arid regions near washes or intermittent streams, including valley- foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores, loose, gravelly areas of streams in drier parts of range.	Not expected to occur. Suitable habitat not present on site.
Bank swallow (<i>Riparia</i> <i>riparia</i>)	/ST	Open, dry, annual or perennial grasslands, desert, or scrubland, with available concentration of small mammal burrows. Prefers grasses short in height, such as those mowed or grazed.	Not expected to nest on site. Suitable habitat present in area and could use site for aerial foraging only.
Bay checkerspot butterfly (<i>Euphydryas</i> editha bayensis)	FT/	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Castilleja densiflora</i> and <i>C. exserta</i> are secondary host plants.	Not expected to occur. Suitable habitat not present on site.

Table 6 Special-Status Wildlife Species with the Potential to Occur in the Project Vicinity

Species	Status (Federal/ State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Black legless lizard (Anniella pulchra nigra)	/SSC	Moist, warm habitats with loose soil for burrowing and prostrate plant cover in beaches, chaparral, pine-oak woodland, or riparian areas.	Not expected to occur. Suitable habitat not present on site.
Blunt-nosed leopard lizard (<i>Gambelia sila</i>)	FE/SE	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures such as fence posts.	Not expected to occur. Suitable habitat not present on site.
Burrowing owl (<i>Athene</i> <i>cunicularia</i>)	/SSC	Open, dry, annual or perennial grasslands, desert, or scrubland, with available small mammal burrows.	Potential to occur.
California brackishwater snail (<i>mimic</i> <i>tryonia</i>) (<i>Tryonia</i> <i>imitator</i>)	/SSC	Aquatic, found on rocks and in gravel of riffles in cool, swift, clear streams.	Not expected to occur. Suitable habitat not present on site.
California clapper rail (<i>Rallus</i> longirostris obsoletus)	FE/SE	Found in saltwater and brackish marshes, traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	Not expected to occur. Suitable habitat not present on site.
California condor (<i>Gymnogyps</i> californianus)	FE/SE	Requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	No potential to occur as nesting individual. Highly unlikely to be observed as a flyover or foraging individual. This area is outside of the

Species	Status (Federal/ State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
			typical movements of the Central Coast flock.
California horned lark (<i>Eremophila</i> alpestris actia)	/SSC	Coastal regions, chiefly from Sonoma County to San Diego County, also within the main part of the San Joaquin Valley and east to the foothills. Prefers short-grass prairie, mountain meadows, open coastal plains, fallow grain fields, alkali flats. Nests on the ground in open areas.	High potential to occur. Nesting population known from area. Known to nest in farm fields.
California least tern (<i>Sternula</i> antillarum browni)	FE/SE	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates (sand beaches, alkali flats, landfills, or paved areas).	Not expected to occur. Suitable habitat not present on site.
California linderiella (Linderiella occidentalis)	FSC/	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools typically has very low alkalinity, conductivity, and total dissolved solids.	Not expected to occur. Suitable habitat not present on site.
California red- legged frog (<i>Rana</i> <i>draytonii</i>)	FT/SSC	Rivers, creeks, and stock ponds with pools and overhanging vegetation. Requires dense, shrubby or emergent riparian vegetation, and prefers short riffles and pools with slow-moving, well- oxygenated water. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter.	Suitable habitat not present on site. Population known from drainage approximately .68 miles to east. Site has a low potential to be utilized during overland movements between

Species	Status (Federal/ State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
California tiger salamander (<i>Ambystoma</i> <i>californiense</i>)	FT/ST	Grasslands and oak woodlands near seasonal pools and stock ponds in central and coastal California. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter. Requires seasonal water sources that persist into late March for breeding habitat.	wetland patches. Low potential to occur. Population of hybrid salamanders known from drainages/ stockponds to north, east, and south of site. Site has a low potential to be utilized during overland movements between
Coast horned lizard (Phrynosoma blainvillii)	/SSC	Arid grassland and scrubland habitats; prefers lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burrowing, and abundant supply of ants and other insects for feeding.	wetland patches. Not expected to occur. Suitable habitat not present on site.
Coast Range newt (<i>Taricha torosa</i>)	/SSC	Coastal drainages; lives in terrestrial habitats and can migrate over 1 km to breed in ponds, reservoirs, and slow- moving streams.	Not expected to occur. Suitable habitat not present on site.
Cooper's hawk (<i>Accipter</i> <i>cooperii</i>)	/SSC	Oak or riparian woodlands.	High potential to occur. Known nesting location within area V in the Natividad Creek riparian corridor.

Species	Status (Federal/ State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Ferruginous hawk (<i>Buteo regalis</i>)	/SSC	(Wintering) Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon-juniper habitats. Mostly consumes flat lagomorphs, ground squirrels, and mice.	Not expected to occur. Suitable habitat not present on site.
Giant kangaroo rat (<i>Dipodomys</i> <i>ingens</i>)	FE/SE	Annual grasslands on the western side of the San Joaquin Valley, marginal habitat in alkali scrub. Needs level terrain and sandy loam soils for burrowing.	Not expected to occur. Suitable habitat not present on site.
Globose dune beetle (<i>Coelus</i> globosus)	/	Inhabitant of coastal sand dune habitat from Bodega Head in Sonoma County south to Ensenada, Mexico. Found in foredunes and sand hummocks, it burrows beneath the sand surface and is most common beneath dune vegetation.	Not expected to occur Suitable habitat not present on site.
Golden eagle (Aquila chrysaetos)	/SFP	Rolling foothill mountain areas, sage- juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range. Also uses large trees in open areas.	Not expected to occur. Suitable habitat not present on site.
Green sea turtle (<i>Chelonia</i> <i>mydas</i>)	FE/	Pacific Ocean.	Not expected to occur Suitable habitat not present on site.
Hoary bat (<i>Lasiurus</i> <i>cinereus</i>)	/SSC	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Low potential to occur. Suitable habitat present in Area V.
Least Bell's vireo (Vireo bellii pusillus)	FE/SE	Summer resident of southern and central California in riparian habitats below 2,000 feet in elevation. Often nests in large shrubs, along margins of bushes or	Not expected to occur. Suitable habitat is present on site, but area is
Species	Status (Federal/ State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
--	--	---	---
		on twigs projecting into pathways.	outside of current known range of species.
Leatherback sea turtle (Dermochelys coriacea)	FE/	Pacific Ocean.	No potential to occur. Suitable habitat not present on site.
Longfin smelt (<i>Spirinchus</i> <i>thaleichthys</i>)	FC/CT	Open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	No potential to occur. Suitable habitat not present on site.
Marbled murrelet (<i>Brachyramphu</i> s marmoratus marmoratus)	FT/SE	Feeds near-shore, nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas fir.	No potential to occur. Suitable habitat not present on site.
Monarch butterfly (overwintering population) (<i>Danaus</i> <i>plexippus</i>)	/	Winter roost sites. Wind protected tree groves (Eucalyptus, Monterey pine, cypress) with nectar and water sources nearby.	No potential to occur. Suitable habitat not present on site.
Obscure bumble bee (<i>Bombus</i> <i>caliginosus</i>)	/	Coastal areas from Santa Barbara County north to Washington State. Food plant genera include <i>Baccharis, Cirsium,</i> <i>Lupinus, Grindelia,</i> and <i>Phacelia.</i>	No potential to occur. Suitable habitat not present on site.
Olive ridley sea turtle (<i>Lepidochelys</i> <i>olivacea</i>)	FE/	Pacific Ocean.	No potential to occur. Suitable habitat not present on site.

Species	Status (Federal/ State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Pallid bat (Antrozous pallidus)	/SSC	Deserts, grasslands, scrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures.	No potential to occur. Suitable habitat not present on site.
Pinnacles optioservus riffle beetle (<i>Optioservus</i> <i>canus</i>)	/	Aquatic, found on rocks and in gravel of riffles in cool, swift, clear streams.	No potential to occur. Suitable habitat not present on site.
Prairie falcon (<i>Falco</i> <i>mexicanus</i>)	/SSC	Nesting Habitats. Open terrain, either level or hilly breeding sites located on cliffs. Forages far distances, including to marshlands and ocean shores. Known to forage in grasslands and agricultural lands.	Low potential to occur. Suitable nesting habitat not present on site. Could be observed as a flyover. Suitable foraging habitat present in agricultural fields where species is known to hunt birds.
Redwood shoulderband (snail) (<i>Helminthoglypt</i> a sequoicola consors)	/	Known only from south slope of San Juan Grade, near foothills, 8 miles northwest of Salinas.	No potential to occur. Suitable habitat not present on site.
Salinas harvest mouse (<i>Reithrodontom</i> ys megalotis distichlis)	/	Known only from the Monterey Bay region. Occurs in fresh and brackish water wetlands and probably in the adjacent uplands around the mouth of the Salinas River.	No potential to occur. Suitable habitat not present on site.

Species	Status (Federal/ State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
San Joaquin	FE/ST	Annual grasslands or grassy open stages	Not expected to
kit fox		with scattered shrubby vegetation. Needs	occur. Suitable
(Vulpes macrotis		loose-textured sandy soils for burrowing,	habitat not present
mutica)		and suitable prey base.	on site.
Santa Cruz long-toed salamander (<i>Ambystoma</i> <i>macrodactylum</i> <i>croceum</i>)	FE/SE	Wet meadows near sea level in a few restricted locales in Santa Cruz and Monterey Counties. Aquatic larvae prefer shallow (<12 inches) water; use clumps of vegetation or debris for cover. Adults use mammal burrows.	No potential to occur. Suitable habitat not present on site.
Short-eared owl (<i>Asio flammeus</i>)	/SSC	(Nesting) Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	No potential to occur. Suitable habitat not present on site.
Silvery legless lizard (Anniella pulchra pulchra)	/SSC	Sandy or loose loamy soils under sparse vegetation, moist soils.	No potential to occur. Suitable habitat not present on site.
Smith's blue	FE/	Coastal dunes and coastal sage scrub plant	No potential to
butterfly		communities. Host plants include <i>Eriogonum</i>	occur. Suitable
(<i>Euphilotes</i>		<i>latifolium</i> and <i>Eriogonum parvifolium</i> for	habitat not present
enoptes smithi)		larval and adult stages.	on site.
Southern sea	FT/	Ocean waters along the California	No potential to
otter		coastline from San Mateo County in the	occur. Suitable
(<i>Enhydra lutris</i>		north to Santa Barbara County in the	habitat not present
<i>nereis</i>)		south.	on site.
Southwestern	FE/SE	Summer resident of southern and central	No potential to
willow		California. Riparian obligate species	occur. Suitable
flycatcher		restricted to dense stream-side	habitat not present
(<i>Empidonax</i>		vegetation. Nests have been found in	on site.

Species	Status	Suitable Habitat Description	Potential to Occur
	(Federal/ State/ CNPS)		on Project Site
trailii extimus)		willows, box elder, salt cedar, live oak, buttonbush, black twinberry, Fremont cottonwood, alder, blackberry, baccharis or mulefat, and stinging nettle.	
Steelhead (Oncorhynchus mykiss irideus)	FT/SSC	Coastal stream with clean spawning gravel. Requires cool water and pools. Needs migratory access between natal stream and ocean.	No potential to occur. Suitable habitat not present on site.
Swainson's hawk (<i>Buteo</i> <i>swainsoni</i>)	/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands or agricultural fields supporting rodent populations.	No potential to occur. Suitable habitat not present on site. Could be observed as a flyover during migration. Suitable foraging habitat not present.
Tidewater goby (<i>Eucyclogobius</i> newberryi)	FE/SSC	Brackish water habitats, found in shallow lagoons and lower stream reaches, still but not stagnant water with high oxygen levels.	No potential to occur. Suitable habitat not present on site.
Townsend's big-eared bat (Corynorhinus townsendii)	 /SC&SS C	Inhabits a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	No potential to occur. Suitable habitat not present on site.
Tricolored blackbird (Agelaius tricolor)	/SE	Areas adjacent to open water with protected nesting substrate, which typically consists of dense, emergent freshwater marsh vegetation.	No potential to occur. Suitable habitat not present on site.
Two-striped garter snake (<i>Thamnophis</i> <i>hammondii</i>)	/SSC	Coastal California from sea level to about 7,000 feet in elevation. Highly aquatic, found in or near permanent fresh water, often along streams with	No potential to occur. Suitable habitat not present on site.

Species	Status (Federal/ State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
		rocky beds and riparian growth.	
Vernal pool fairy shrimp (<i>Branchinecta</i> <i>lynchi</i>)	FT/	Endemic to the grasslands of the Central Valley, Central Coast Mtns., and South Coast Mtns. in astatic rain-filled pools. Inhabits small, clear-water sandstone depression pools and grass swale, earth slump, or basalt-flow depression pools.	No potential to occur. Suitable habitat not present on site.
Western pond turtle <i>(Emys marmorata</i>)	/SSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites (such as rocks or partially submerged logs) and suitable upland habitat for egg-laying (sandy banks or grassy open fields).	No potential to occur. Suitable habitat not present on site.
Western snowy plover (Charadrius alexandrinus nivosus)	FT/SSC	Sandy beaches, salt pond levees, shores of large alkali lakes; sandy, gravelly, or friable soils for nesting.	No potential to occur. Suitable habitat not present on site.
White-tailed kite (<i>Elanus</i> <i>leucurus</i>)	/SFP	Rolling foothills and valley margins with scattered oaks, and river bottomlands or marshes next to deciduous woodlands. Open grasslands, meadows, or marshes for foraging close to isolated, dense- topped trees for nesting and perching.	No potential to occur. Suitable habitat not present on site. Could be observed as a flyover. Suitable foraging habitat not present.

Sources: CDFW 2015, USFWS 2015, EMC Planning Group 2015.

Listing Status Codes:

Federal (USFWS)

FE - Listed as Endangered under the Federal Endangered Species Act.

FT - Listed as Threatened under the Federal Endangered Species Act.

 $\mathrm{FC}-\mathrm{Candidate}$ for listing under the Federal Endangered Species Act.

State (CDFW)

- SE Listed as Endangered under the California Endangered Species Act.
- ST Listed as Threatened under the California Endangered Species Act.
- $SC-C and idate \ for \ listing \ under \ the \ California \ Endangered \ Species \ Act.$
- FP CDFW Fully Protected species under California Fish and Game Code.
- SSC CDFW Species of Special Concern.

California Horned Lark. California horned lark, a state of California Species of Special Concern, was observed on the site during the biological reconnaissance survey, and has been observed engaging in courtship behavior (singing, flight displays) near the northeastern project site boundary during nesting season (Lyons and Mori, 2005). This species is known to nest on the ground in open disturbed habitats, and has been documented nesting on the ground in agricultural fields with row crops.

California Red-Legged Frog. This species is a federally-listed Threatened species and California Species of Special Concern. It occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation; it requires nearby upland habitat to aestivate during dry months (Jennings and Hayes 1994).

One documented occurrence of California red-legged frog (Occurrence #601) was approximately 0.5 miles from the project site (CDFW 2015). This occurrence includes observations of seven live adults and one live metamorph between 2002 and 2004, and one adult road-killed frog on Old Stage Road in 2003.

The project site contains no breeding habitat, upland aestivation habitat, or moist upland refugia suitable for California red-legged frog, and therefore there is no need to mitigate for lost habitat. However, there is potential for California red-legged frog to use the project site for overland dispersal between suitable habitat patches, especially during the first rain events of the wet season.

California Tiger Salamander. The federally and state-listed Threatened California tiger salamander is a large terrestrial salamander (adults are six to nine inches in length), with several white to pale yellow spots or bars on a jet-black body surface. It occurs in central California from the Sacramento Valley to the south-central San Joaquin Valley, and in the surrounding foothills of both the Coast Ranges and the Sierra Nevada Mountains. California tiger salamanders are also recorded from the San Francisco Bay region, Sonoma County, the Monterey Bay region, and the valleys and foothills of San Luis Obispo and Santa Barbara counties.

California tiger salamanders breed in temporary wetland pools, such as vernal pools, and other seasonal wetland bodies where ponded water is present for a minimum of three to four months, extending into the early spring. Such ponds and temporary wetlands provide necessary breeding and larval-stage habitat for the species. Adults spend most of the year in aestivation,

underground in the burrows of small mammals, such as the California ground squirrel and/or Botta's pocket gopher, or within other suitable subterranean retreats. They emerge at night during winter rains for brief periods to breed (Trenham 2001). Aquatic juveniles (larvae) are mostly herbivorous (Stebbins 1985). California tiger salamanders normally begin to reproduce after three to five years.

The California tiger salamander, Central population, is threatened by habitat destruction, degradation, and fragmentation due to urban development and conversion to intensive agriculture (USFWS 2004). In addition, it is threatened by hybridization with non-native tiger salamanders, predation by non-native predators, disease, exposure to contaminants, rodent population control efforts, mortality due to crossing roads, and several other factors (USFWS 2004). Hybridization is of particular concern in the Central Coast as practically all populations of California tiger salamander from Santa Clara County south of the San Luis Obispo County line, and east into San Benito County, including in Monterey County, have non-native genes.

Dr. Bradley Schaffer, an evolutionary biologist with the University of California - Long Beach and an authority on California tiger salamander evolutionary science, has conducted a multiyear study of California tiger salamander phylogenetics (the study of the inter-relatedness of organisms) within Monterey County California tiger salamander populations, and found that eastern tiger salamanders (not native to California) have interbred and hybridized with the native California tiger salamander populations in the greater Salinas Valley area, resulting in a predominance of non-native salamanders in the area.

Four occurrences of California tiger salamander were found within about three miles of the project area in the CNDDB (CDFW 2015). Occurrence #797 is about a half-mile from the project site and documents a road-killed tiger salamander found on Old Stage Road in 2002. The taxonomic status of this individual was uncertain. Occurrence #826 is located about one mile away in a farm stockpond. Larvae sampled from this pond in 2004 were hybrid or non-native tiger salamanders. Occurrence #993 is approximately one mile from the project site in a stockpond near Natividad Road. In 2007, salamander larvae sampled here proved to be hybrid non-native tiger salamanders. Occurrence # 827 is about two miles from the project site where the southernmost tributary to Natividad Creek crosses Old Stage Road. Larvae sampled from this pond in 2004 were hybrid or non-native tiger salamanders.

The project site contains no breeding habitat, upland aestivation habitat, or moist upland refugia suitable for California tiger salamander, and therefore there is no need to mitigate for lost habitat. However, there is potential for California tiger salamander to use the project site for overland dispersal between suitable habitat patches, especially during the first rains of the wet season.

Nesting Birds and Raptors. Portions of the project site contain non-native vegetation that may provide suitable foraging and nesting opportunities for bird species protected under the federal Migratory Bird Treaty Act and California Fish and Wildlife Code. Construction noise has the potential to disturb nesting birds, if construction activities were to occur during the bird nesting season (February 1 through September 15). Human disturbance in proximity to a nest, excessive noise around a nest, and loss of foraging grounds, can lead to nest failure. Common bird species detected during the biological surveys include red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), turkey vulture (*Cathartes aura*), common raven (*Corvus corax*), Brewer's blackbird (*Euphagus cyanocephalus*), red-winged blackbird (*Agelaius phoeniceus*), killdeer (*Charadrius vociferous*), bushtit (*Psaltriparus minimus*), song sparrow (*Melospiza melodia*), white-crowned sparrow (*Zonotrichia leucophrys*), chestnut-backed chickadee (*Poecile rufescens*), Bewick's wren (*Thryomanes bewickii*), mourning dove (*Zenaida macroura*), yellow-rumped warbler (*Dendroica coronata*), common yellowthroat (*Geothlypis trichas*), Anna's hummingbird (*Calypte anna*), American goldfinch (*Carduelis tristis*), lesser goldfinch (*Carduelis psalitria*), and house finch (*Carpodacus mexicanus*).

Sensitive Natural Communities

Sensitive natural communities are defined by local, state, or federal agencies as habitats that support special-status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity. There were no sensitive natural communities identified on the project site at the time of the biological reconnaissance survey.

Wildlife Movement

Wildlife movement includes migration (i.e., usually movement one way per season), interpopulation movement (i.e., long-term dispersal and genetic flow), and small travel pathways (i.e., daily movement within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities, such as foraging or escape from predators, they also provide connection between outlying populations and the main populations, permitting an increase in gene flow among populations. These habitat linkages can extend for miles and occur on a large scale throughout the greater region. Habitat linkages facilitate movement between populations located in discrete locales and populations located within larger habitat areas.

Impacts from development, such as habitat fragmentation and/or isolation, as well as the creation of impassable barriers can cause a significant impact to wildlife corridors. Depending on the organism and its needs, movement corridors can either be continuous or discontinuous patches of suitable habitat. Preserving expanses of open space that are connected may enable species utilizing these areas as foraging or breeding habitat to persist.

The project site is surrounded by active agricultural land. The drainage ditch draining to Natividad Creek likely facilitates wildlife movement for common, urban-adapted mammals such as Virginia opossum (*Didelphis virginiana*) and raccoon (*Procyon lotor*).

Regulatory Setting

Federal Plans and Regulations

Endangered Species Act. The federal Endangered Species Act of 1973 protects species that the USFWS has listed as "Endangered" or "Threatened." Permits may be required from USFWS if activities associated with a proposed project would result in the "take" of a federally listed species or its habitat. Under the Endangered Species Act, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take. "Take" of a listed species is prohibited unless (1) a Section 10(a) permit has been issued by the USFWS or (2) an Incidental Take Statement has been obtained through formal consultation between a federal agency and the USFWS pursuant to Section 7 of Endangered Species Act.

Migratory Bird Treaty Act. The federal Migratory Bird Treaty Act of 1989 prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This Act encompasses whole birds, parts of birds, bird nests, and eggs.

Clean Water Act. Section 404 of the Clean Water Act of 1972 regulates the discharge of dredge and fill material into "Waters of the U.S." including wetlands. Certain natural drainage channels and wetlands are considered jurisdictional "Waters of the U.S." The USACE is responsible for administering the Section 404 permit program. The agency determines the extent of its jurisdiction as defined by ordinary high water marks on channel banks. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual and the 2006 Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.

Activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE. Discharge permits are typically issued on the condition that the project proponent agrees to provide compensatory mitigation which results in no net loss of wetland area, function, or value, either through wetland creation, restoration, or the purchase of wetland credits through an approved wetland mitigation bank. In addition to individual discharge permits, the USACE also issues nationwide permits applicable for certain activities.

State Plans and Regulations

California Endangered Species Act. Pursuant to the California Endangered Species Act and Section 2081 of the California Fish and Wildlife Code, an incidental take permit from the CDFW is required for projects that could result in the "take" of a state-listed Threatened or Endangered species. "Take" is defined under these laws as an activity that would directly or indirectly kill an individual of a species. If a proposed project would result in the 'take' of a state-listed species, then a CDFW Incidental Take Permit, including the preparation of a conservation plan, would be required.

Nesting Birds and Birds of Prey. Sections 3505, 3503.5, and 3800 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, including their nests or eggs. Birds of prey (the orders Falconiformes and Strigiformes) are specifically protected in California under provisions of the California Fish and Game Code, Section 3503.5. This section of the Code establishes that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this Code. Disturbance that causes nest abandonment and/or loss of reproductive effort, such as construction during the breeding season, is considered take by the CDFW.

Streambed Alterations. The CDFW has jurisdiction over the bed and bank of natural drainages according to provisions of Sections 1601 through 1603 of the California Fish and Wildlife Code. Diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that support wildlife resources and/or riparian vegetation are subject to CDFW regulations. Activities that would disturb these drainages are regulated by the CDFW; authorization is required in the form of a Streambed Alteration Agreement. Such an agreement typically stipulates measures that will protect the habitat values of the drainage in question.

California Porter-Cologne Water Quality Control Act. Under the California Porter-Cologne Water Quality Control Act, the applicable Regional Water Quality Control Board (RWQCB) may necessitate Waste Discharge Requirements for the fill or alteration of "Waters of the State," which according to California Water Code Section 13050 includes "any surface water or groundwater, including saline waters, within the boundaries of the state." The RWQCB may, therefore, necessitate Waste Discharge Requirements even if the affected waters are not under USACE jurisdiction.

Also, under Section 401 of the Clean Water Act, any activity requiring a USACE Section 404 permit must also obtain a state Water Quality Certification (or waiver thereof) to ensure that the proposed activity will meet state water quality standards. The applicable state RWQCB is responsible for administering the water quality certification program and enforcing National Pollutant Discharge Elimination System permits.

Habitat Conservation Plans

There are no Habitat Conservation Plans or Natural Community Conservation Plans applicable to the project site.

Standards of Significance

CEQA Guidelines Appendix G indicates that a project may have a significant effect on the environment if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Analysis, Impacts and Mitigation

Environmental Topics Eliminated from Further Consideration

Natural Communities. The proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or the USFWS. Therefore, the project would have no

impact on riparian habitat and special-status natural communities of concern and this topic is not further discussed in this section.

Habitat Conservation Plans. The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other approved biological resources recovery or habitat conservation plan of any local, regional or state agency. The project site is not located within an area covered by any adopted habitat conservation plans.

IMPACT: THE PROJECT WOULD RESULT IN POTENTIAL IMPACTS TO WETLANDS AND JURISDICTIONAL WATERS OF THE U.S. (LESS THAN SIGNIFICANT WITH MITIGATION)

Based on the results of the reconnaissance-level survey and maps from the National Wetlands Inventory, the proposed project has the potential to significantly impact jurisdictional Waters of the U.S. The man-made drainage ditch that originates in the northern half of the project site near the pump station conveys agricultural runoff and storm water through a series of man-made ditches and agricultural canals into the Natividad Creek channel. At its upper reach, the drainage ditch is about two feet deep by three feet wide, and has a defined bed or bank. The drainage ditch flows southeast along the edge of a field and splits into two ditches – one is a wide heavily eroded canal, the other is narrow vegetation lined drainage ditch. Both of these ditches discharge into Natividad Creek.

The on-site drainage ditch vegetation consists of weedy and ruderal vegetation with no riparian habitat or wetland vegetation present. This drainage ditch will be filled in as part of the proposed project.

Under Title 40 of the Code of Federal Regulations, "Waters of the U.S." has a specific meaning, and includes tributaries to waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The USACE regulates the filling or grading of such jurisdictional waters by authority of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. The extent of USACE jurisdiction within drainage channels is defined by the ordinary high water mark on opposing channel banks.

Activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE. Discharge permits are typically issued on the condition that the project proponent agrees to provide mitigation that results in no net loss of wetland/waterway function or value. In addition to individual discharge permits, the USACE issues nationwide permits applicable to certain activities. Under the nationwide permits, discharge of fill must be minimized to the extent practicable.

No discharge permit can be issued until the RWQCB issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards. The RWQCB is also responsible for enforcing National Pollutant Discharge Elimination System permits, including the General Construction Activity Storm Water Permit.

The CDFW has jurisdiction over the bed and bank of natural drainages according to provisions of Section 1601 and 1603 of the California Fish and Game Code. Activities that would disturb these drainages are regulated by the CDFW via a Streambed Alteration Agreement. Such an agreement typically stipulates certain measures that will protect the habitat values of the drainage in question.

Due to the connection of the existing on-site drainage ditch to Natividad Creek which flows into Carr Lake, the drainage ditch could be considered jurisdictional by the USACE and regional board. While the ditch is not natural and does not provide quality wildlife habitat, it nevertheless is possible that CDFW could also claim jurisdiction. Impacts to a jurisdictional feature are potentially significant. Implementation of the following mitigation measure will reduce this impact to a less-than-significant level.

Mitigation Measure

BIO-1. To assess whether the on-site ditch is jurisdictional, the school district will retain a qualified biologist/wetland regulatory specialist to initiate informal discussions with the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (regional board), and California Department of Fish and Wildlife (CDFW) for this purpose. If the drainage ditch is not determined to be jurisdictional by any of the agencies, no further action is necessary. If found to be jurisdictional, the school district will initiate the appropriate permitting process(s) with the agency(s) taking jurisdiction. This may include retaining a qualified biologist/wetland regulatory specialist to conduct a jurisdictional wetland/waterway delineation to quantify project impacts to jurisdictional waters and submitting the delineation to the USACE for verification. If jurisdictional features are present, prior to commencement of earth-disturbing activity, approval of a Section 404 permit from the USACE and a Section 401 permit from the regional board may be required. If CDFW also takes jurisdiction, a Streambed Alteration Agreement from the CDFW may also be required prior to approval of a grading permit. These permits could include compensatory mitigation and storm water protection measures. The school district would be responsible for implementation of this mitigation measure.

Implementation of mitigation measure BIO-1 would ensure that potential impacts to wetlands and Waters of the U.S. are mitigated to less than significant by requiring a jurisdictional determination and permit. Therefore, this impact would be less than significant with mitigation incorporated.

IMPACT: THE PROJECT WOULD RESULT IN POTENTIAL IMPACTS TO CONGDON'S TARPLANT (LESS THAN SIGNIFICANT WITH MITIGATION)

To protect the special-status plant species with potential to occur in proposed project impact areas, the absence of Congdon's tarplant was confirmed through an August 9, 2016 focused plant survey in all non-native grassland and ruderal (weedy) habitats in proposed project impact areas. No special-status plant species were observed in the project impact areas, thus there would currently be no impact to this species.

Focused plant survey results are generally considered valid for about five years. Therefore, if project construction occurs after August 2021, to ensure that the annual disturbance-tolerant species has not established in proposed impact areas, the focused plant survey shall be repeated during the peak blooming period for this species prior to construction activities. Removal of this plant species (if present) is considered a potentially significant impact. Implementation of the following mitigation measure would reduce this potential impact to a less-than-significant level.

Mitigation Measure

BIO-2. If project construction occurs after August 2021, to protect potentially occurring specialstatus plant species, the presence/absence of Congdon's tarplant in all non-native grassland and ruderal (weedy) habitats on the project site and off-site improvement areas shall be determined prior to construction activities. A qualified biologist shall conduct a focused plant survey for this species during its peak blooming period (typically August to September). If the survey concludes that the species is not present, then no further mitigation is required. If the survey area is mapped as experiencing exceptional drought conditions according to the U.S. Drought Monitor, blooming reference populations of the species should be first identified in the project vicinity to verify that the species is observable. If reference populations are observed in peak bloom, then the project site can be surveyed.

If this species is found to occur, then appropriate mitigation shall be developed and implemented. Mitigation may include, but not be limited to, the school district contracting with a qualified biologist or native plant specialist to collect seed from the annual Congdon's tarplant individuals within the impact area prior to initiation of ground disturbance activities. The school district would then oversee selection of an appropriate mitigation area in the project vicinity that is already preserved or shall be protected in perpetuity through a conservation easement. Collected seed would be installed at the mitigation area at the optimal time. Topsoil from the project site would be salvaged (where practical) for use in the mitigation area.

The school district would be responsible for implementation of this mitigation measure. Implementation of mitigation measure BIO-2 would ensure that potential impacts to Congdon's tarplant are mitigated to less than significant by requiring a determination of whether the species is present and if so, requiring implementation of measures to replant or otherwise protect the species in other suitable locations. Therefore, this impact would be less than significant with mitigation incorporated.

IMPACT: THE PROJECT WOULD RESULT IN POTENTIAL IMPACTS TO NESTING BIRDS AND RAPTORS (LESS THAN SIGNIFICANT WITH MITIGATION)

Implementation of the proposed project would result in potentially significant impacts to nesting birds. Protected nesting birds, including the state of California Species of Special Concern California horned lark (*Eremophila alpestris actia*), could nest on the project site or in the immediate vicinity of the project site. Construction noise has the potential to impact nesting birds (including raptors) protected under the federal Migratory Bird Treaty Act and California Fish and Wildlife Code, if construction activities were to occur during the nesting bird season. If protected species are nesting in or adjacent to the project site during the nesting season, then construction activities could result in the loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Implementation of the following mitigation measure would reduce potentially significant impacts to nesting birds to a less than significant level.

Mitigation Measure

BIO-3. If construction commences during the bird nesting season (February 1 through September 15), a qualified biologist shall conduct a pre-construction survey for nesting birds to ensure that no nests would be disturbed during project construction. This survey shall be conducted no more than seven days prior to the initiation of disturbance activities.

If no active nests are present within 250 feet of construction activities, then activities can proceed as scheduled. However, if an active nest is detected during the survey within 250 feet of proposed construction, then the establishment of a protective construction-free buffer zone from each active nest (typically 250 feet for raptors and 50-100 feet for other species) shall be clearly delineated or fenced until the juvenile bird(s) have fledged (left the nest), unless the biologist determines that construction would not disturb the active nest.

Monitoring Action: If grading activities start outside of the bird breeding season, no monitoring activities are necessary. However, if grading activities start during the bird breeding season, prior to the start of grading activities, the contractor shall document the conclusions of the pre-construction surveys and submit a report to the school district.

Implementation of Mitigation Measure BIO-3 ensures that potential disturbance of nesting birds is reduced by requiring avoidance measures and/or pre-construction surveys to ensure development activities would not disrupt nesting activities. Therefore, this impact would be less than significant with mitigation incorporated.

IMPACT: THE PROJECT WOULD RESULT IN POTENTIAL IMPACTS TO CALIFORNIA RED-LEGGED FROG AND CALIFORNIA TIGER SALAMANDER (LESS THAN SIGNIFICANT WITH MITIGATION)

The proposed project is unlikely to have a substantial adverse effect on special-status amphibians including California red-legged frog and California tiger salamander, because the proposed impact areas do not contain breeding, upland aestivation habitat, or moist upland refugia. However, because California red-legged frog and California tiger salamander were found near the project site, and suitable habitat patches were found in the surrounding landscape, there is a possibility that California red-legged frog or California tiger salamander could traverse the project site during overland dispersal after rain events. If a wandering California red-legged frog or California tiger salamander were fixed under the Endangered Species Act and/or California Endangered Species Act, and incidental take permits from the USFWS and CDFW would be required to proceed with work. An unauthorized "take" would be a significant impact. Implementation of the following mitigation measures would reduce this impact to a less-than-significant level.

Mitigation Measure

BIO-4. To avoid possible impacts to California red-legged frog and California tiger salamander, initial site clearing and grading will be conducted and completed only during the dry season, which typically extends from April 15 to November 15. Site clearing and grading shall halt if significant rainfall, defined as greater than 0.5 inches per 24 hours within a local watershed, is either forecasted or observed to avoid environmental conditions when California red-legged frog and California tiger salamander would have the potential to be active.

The access route and main project site shall be fenced with wildlife fencing that will prevent California red-legged frog and California tiger salamander from entering construction areas. Fencing at least three feet tall shall be installed in such a manner that water does not collect within folds of the fence material, or Ertec fencing may be used. This fence shall be inspected weekly by a biologist qualified to assess and monitor California red-legged frog and California tiger salamander and any holes or tears that could allow frogs or salamanders to pass into the work area shall be repaired within 24 hours. In addition, the fence and the site shall be inspected by a qualified biologist after

significant rain events to ensure that no frogs or salamanders are sheltering along the fence or attempting to walk around it. In the unforeseen event that California red-legged frog or California tiger salamander are encountered, the biologist shall contact the USFWS and/or CDFW immediately to determine the best course of action. At a minimum, all construction activities shall cease until the frog or salamander leaves the work area. To the extent that avoidance of the California red-legged frog/California tiger salamander is not possible, then mitigation shall be provided for the project following consultation with USFWS and CDFW. Mitigation may include, but not be limited to, species salvage and relocation, habitat enhancement, or compensatory mitigation.

Before construction-associated activities begin at the project site, the qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training would include a description of California red-legged frog and California tiger salamander and their habitats, general measures that are being implemented to conserve California red-legged frog and California tiger salamander as they relate to the project, and the boundaries within which the project occurs. Informational handouts with photographs clearly illustrating the species' appearances shall be used in the training session. All new construction personnel shall undergo this mandatory environmental awareness training.

The contractor shall avoid the use of monofilament netting on the project site including in temporary and permanent erosion control materials (fiber rolls and blankets).

The contractor shall document the implementation of these mitigation measures and submit monthly reports to the school district.

Implementation of Mitigation Measure BIO-4 would ensure that potential impacts to specialstatus amphibian species are reduced by requiring exclusion fencing, awareness training, and monitoring. Therefore, this impact is less than significant with mitigation incorporated.

IMPACT: THE PROJECT WOULD RESULT IN LESS THAN SIGNIFICANT IMPACTS TO WILDLIFE CORRIDORS (LESS THAN SIGNIFICANT)

The proposed project would not substantially interfere with wildlife movement or corridors. The site, along with the neighboring undeveloped property to the north, likely facilitates local, nondirectional movement of urban-adapted generalist species as they forage in and agricultural fields, and neighboring residential development. However, the site is bordered by development or heavily trafficked roads to the south, and is highly disturbed from activities associated with agriculture, reducing its functional value for wildlife species moving through the larger landscape. The undeveloped grazing land to the east in the Gabilan Range, and the less disturbed portions of the Gabilan and Natividad Creek Corridors likely support regional wildlife movement. Therefore, the proposed project is expected to have a less than significant impact on the movement of native resident or migratory wildlife species.

3.5 CULTURAL RESOURCES

This section presents the regional and site setting with regard to cultural resources, and discusses the potential for existence of cultural resources at the project site and potential impacts to cultural resources from implementation of the proposed project. No comments were received regarding potential impacts to cultural resources during the NOP process.

Environmental Setting

Regional Setting

The project site is located within the currently recognized ethnographic territory of Costanoan (often referred to as Ohlone) linguistic group. The group followed a general hunting and gathering subsistence pattern with partial dependence on the natural acorn crop. They lived a semi-sedentary life and occupation sites are most often found at the confluence of streams, other areas of similar topography along streams, or in the vicinity of springs. These original sources of water may no longer be present or adequate. Resource gathering and processing areas, and associated temporary campsites, are frequently found on the coast and in other locations containing resources utilized by this group. Factors which influence the location of these sites include the presence of suitable exposures of rock for bedrock mortars or other milling activities, ecotones, the presence of specific resources (oak groves, marshes, quarries, game trails, trade routes, etc.), proximity to water, and the availability of shelter. Temporary camps or other activity areas can also be found along ridges or other travel corridors as identified by a report prepared for the project's vicinity (Archeological Consulting 2006).

Paleontological Resources

Most of the fossils found in Monterey County are of marine life forms and form a record of the region's geologic history of advancing and retreating seal levels. Because of the marine origin of these deposits, they lack the large terrestrial fossils found in other regions. Most of Monterey County's fossils are microorganisms or assemblages of mollusks and barnacles most commonly found in sedimentary rocks ranging from the Cretaceous age (96,138 million years old) to Pleistocene age (11 thousand to 1.6 million years old). Soil deposits and marine terraces from these periods occur within the City's planning area, indicating a potential for paleontological resources to occur (City of Salinas 2002).

Fossils are found throughout Monterey County because of the widespread distribution of marine deposits. A review of nearly 700 known fossil localities was conducted by paleontologists in 2001, and 12 fossil sites were identified as having outstanding scientific value. To avoid potential degradation of the sites, the precise locations have been omitted from this document. However, the general location of the sites is shown in Exhibit 4.10.1 of the Monterey County General Plan. For the most part, the fossils at these 12 sites reflect the type of assemblages found throughout the county (microorganisms or invertebrates); however, each has special characteristics that make it unique or rare, or in some way provide important stratigraphic or historic information (Monterey County 2008). The project site is not located within the vicinity of any of the 12 sites.

Project Site and Vicinity

The project site and adjacent off-site area is currently in agricultural production and has been utilized for row crops since at least the 1950s (Kleinfelder 2009). The project site is located between Gabilan Creek and Natividad Creek. Gabilan Creek runs north-south approximately 0.7 miles east of the project site, and Natividad Creek runs north-south approximately 0.25 miles west of the project site. The project site is not located within an area considered to have historic or architectural merit (General Plan, Figure COS-3, Historic and Architectural Resources). The only built environment components on the project site are irrigation system features (e.g. a well, a pump, and irrigation piping) and barbed wire fencing, and there is one pole-mounted transformer located near the northern edge of the site. Agricultural structures and facilities, along with associated housing structures, are located approximately 0.5 miles to the northeast of the site along Old Stage Road.

Regulatory Setting

Federal

National Historic Criteria. Federal regulations for cultural resources are primarily governed by section 106 of the National Historic Preservation Act of 1966, which applies to actions taken by federal agencies, such as approval of section 404 permits for fill of wetlands. The National Register of Historic Places was established to recognize resources associated with the accomplishments of all peoples who have contributed to the country's history and heritage. Guidelines were designed for federal and state agencies in nominating cultural resources to the national register. These guidelines are based upon integrity and significance of the resource. Integrity applies to specific items such as location, design, setting, materials, workmanship, feeling, and association.

State

CEQA Guidelines Section 15064.5. Under CEQA, public agencies must consider the effects of their actions on both "historical resources" and "unique archeological resources." CEQA Guidelines section 15064.5(a)(i) defines a historical resource as, among other things, a resource listed or eligible for listing on the California Register of Historical Resources. In addition, a resource is presumed to constitute an historical resource if it is included in a local register of historical resources unless the preponderance of evidence demonstrates that it is not historically or culturally significant (CEQA Guidelines, section 15064.5(a)(2)).

CEQA Guidelines section 15064.5(b)(2) describes a historic resource as being "materially impaired" when a project "demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in" either, the California Register of Historic Resources, a local register of historic resources, or a historical resource survey.

Under CEQA, a "unique archaeological resource" is defined as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: 1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; 2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or 3) is directly associated with a scientifically recognized important prehistoric or historic event or person (Public Resources Code, section 21083.2(h)).

If an archaeological site does not meet the criteria for inclusion on the California Register of Historical Resources but does meet the definition of a unique archeological resource as outlined in the Public Resource Code section 21083.2, it is entitled to special protection or attention under CEQA. Treatment options under section 21083.2 include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under section 21083.2 include excavation and curation or study in place without excavation and curation.

CEQA Guidelines section 15064.5(e) and section 7050.5 of the California Health and Safety Code require that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner has been informed and has determined that: 1) no investigation of the cause of death is required; and 2) whether the remains are of Native American origin. CEQA Guidelines section 15064.5 also specifies procedures to be followed in case of the discovery of human remains on non-federal land. These procedures include appropriate and dignified treatment of human remains and associated grave goods, and may include reburial on the site in an area free from disturbance. The disposition of Native American burials falls within the jurisdiction of the Native American Heritage Commission.

State Historic Criteria. A cultural resource is considered "significant" if it qualifies as eligible for listing in the California Register of Historical Resources. Properties that are eligible for listing in the California Register of Historical Resources must meet one or more of the following criteria:

- a. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
- b. Associated with the lives of persons important to local, California or national history;
- c. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values; and/or
- d. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

A property may be automatically listed in the California Register of Historical Resources if it is formally determined eligible for the National Register of Historic Places. Properties that are formally determined eligible for the National Register of Historic Places are those that are designated as such through one of the federal preservation programs administered by the California Office of Historic Preservation.

The California Register of Historical Resources interprets the integrity of a cultural resource based upon its physical authenticity. A historic cultural resource must retain its historic character or appearance and thus be recognizable as a historic resource. Integrity is evaluated by examining the subject's location, design, setting, materials, workmanship, feeling, and association. If the subject has retained these qualities, it may be said to have integrity. It is possible that a cultural resource may not retain sufficient integrity to be listed in the National Register of Historic Places yet still be eligible for listing in the California Register of Historical Resources. If a cultural resource retains the potential to convey significant historical/scientific data, it may be said to retain sufficient integrity for potential listing in the California Register of Historical Resources.

California State Assembly Bill 52. On September 25, 2014 Governor Brown signed Assembly Bill No. 52, which creates a new category of environmental resources that must be considered under CEQA: "tribal cultural resources." The legislation imposes new requirements for consultation regarding projects that may affect a tribal cultural resource, includes a broad definition of what may be considered to be a tribal cultural resource, and includes a list of recommended mitigation measures.

AB 52 adds tribal cultural resources to the categories of cultural resources in CEQA, which had formerly been limited to historic, archaeological, and paleontological resources. "Tribal cultural

resources" are defined as either (1) " sites, features, places cultural landscapes, sacred places and objects with cultural value to a California Native American tribe" that are included in the state register of historical resources or a local register of historical resources, or that are determined to be eligible for inclusion in the state register; or (2) resources determined by the lead agency, in its discretion, to be significant based on the criteria for listing in the state register.

Under AB 52, a project that may cause a substantial adverse change in the significance of a tribal cultural resource is defined as a project that may have a significant effect on the environment. Where a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact.

Recognizing that tribes may have expertise with regard to their tribal history and practices, AB-52 requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. If the tribe requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe. Consultation may include discussing the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe.

The parties must consult in good faith, and consultation is deemed concluded when either the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource (if such a significant effect exists) or when a party concludes that mutual agreement cannot be reached.

The school district has complied with the requirements of AB-52 for the proposed project. In June 2015, the school district received a letter from the Ohlone/Costanoan-Esselen Nation requesting formation notification of proposed projects by the school district within the Ohlone/Costanoan-Esselen Nation's geographic area of traditional and cultural affiliation. The proposed project site is located within this geographic area of traditional and cultural affiliation.

In August 2015, the Ohlone/Costanoan-Esselen Nation was sent the NOP, requesting any comments on the scope and content of the environmental information to be included in the EIR. The school district received no comments on the proposed project's EIR scope or content from the Ohlone/Costanoan-Esselen Nation.

Standards of Significance

• CEQA Guidelines Appendix G indicates that a project may have a significant effect on the environment if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

Analysis, Impacts and Mitigation

Environmental Topics Eliminated from Further Analysis

Historic Resources. Other than a well and pump, there are no structures on the project site and the site is not located within a historic district. As noted in the *Phase I Environmental Site Assessment* for the proposed middle school project site (Kleinfelder 2009), archival aerial photography indicates that the site has been historically used for agricultural row crops since at least 1956. Therefore, no impacts to significant historic architectural resources would result from the proposed project and no further analysis of this issue is required.

IMPACT: THE PROJECT WOULD RESULT IN POTENTIAL DAMAGE TO UNKNOWN ARCHEOLOGICAL RESOURCES (LESS THAN SIGNIFICANT WITH MITIGATION)

The project site is not identified by City or County planning documents as being within an area of high archaeological sensitivity. However, the development of the project site for a new middle school could result in the discovery and/or disturbance of unknown and unanticipated buried cultural resources during grading and construction activities. Damage to these resources would be considered a significant impact.

Implementation of the following mitigation measures would reduce potential impacts to cultural resources to less than significant.

Mitigation Measure

CR-1. Due to the possibility that significant buried cultural resources might be found during construction, and in accordance with CEQA Guidelines section 15064.5, the Salinas Union High School District will ensure that the following language is included in all construction contracts and plans:

If archaeological resources or human remains are accidentally discovered during construction, work shall be halted within 50 meters (165 feet) of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented.

Mitigation shall include, at a minimum, recovery of significant cultural materials and professional analysis based on the types and quantities of those materials recovered, which might include analysis of lithic artifacts and materials, radiocarbon dating of shell fragments, bead analysis, faunal analysis, etc. Cultural materials recovered during monitoring and/or mitigation, other than those directly associated with Native American burials, should be curated in the public domain at a suitable research facility.

IMPACT: THE PROJECT WOULD RESULT IN POTENTIAL DAMAGE TO UNKNOWN PALEONTOLOGICAL RESOURCES (LESS THAN SIGNIFICANT IMPACT WITH MITIGATION)

During site preparation and construction of the project, previously undiscovered paleontological resources could be accidentally discovered; disruption of these undiscovered resources would be considered a significant impact.

Development of the proposed project could result in the potential destruction or damage of paleontological resources (i.e., fossils, fossil formations) that may be present below ground. The project site has not been surveyed for paleontological resources. No unique geological features are present on the site surface. However, there is a possibility of the unanticipated discovery of paleontological resources during ground-disturbing activities associated with construction. Therefore, development of the project could impact significant paleontological resources that have not yet been discovered, which could result in a significant impact.

The following mitigation measure would reduce the potential impact to a less-than-significant level.

Mitigation Measure

CR-2. The Salinas Union High School District will ensure the following language is included in all construction contracts and plans:

In the event that any previously undiscovered paleontological resources are discovered, all work shall be halted within 50 meters (165 feet) of the find, and a qualified paleontologist retained to examine the

find and make appropriate recommendations, including, if necessary, feasible mitigation measures to reduce impacts to a less than significant level. The district shall then implement the identified mitigation measures for the protection of paleontological resources.

Implementation of Mitigation Measure CR-2 would require construction to be halted and appropriate evaluation and actions be taken should paleontological resources be discovered during construction. Implementation of the mitigation measure would reduce potentially significant impacts associated with unique paleontological resources to a less-than-significant level.

IMPACT: THE PROJECT WOULD RESULT IN POTENTIAL DISTURBANCE OF UNKNOWN NATIVE AMERICAN HUMAN REMAINS (LESS THAN SIGNIFICANT IMPACT WITH MITIGATION)

Site preparation and construction of the proposed project could result in the potential disturbance of human remains as yet to be discovered on the site; destruction or damage of human remains would be considered a significant impact. The following mitigation measure is required to minimize the impact.

Mitigation Measure

CR-3. The Salinas Union High School District will ensure that the following language is included is included in all construction contracts and plans in accordance with CEQA Guidelines section 15064.5(e):

If human remains are found during construction there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the coroner of Monterey County is contacted to determine that no investigation of the cause of death is required. If the coroner determines the remains to be Native American the coroner shall contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent (MLD) from the deceased Native American. The MLD may then make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and associated grave goods as provided in Public Resources Code Section 5097.98. The landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance if: a) the Native American Heritage Commission is unable to identify a MLD or the MLD failed to make a recommendation within 24 hours after being notified by the commission; b) the descendent identified fails to make a recommendation; or c) the landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Implementation of Mitigation Measure CR-3 would require construction to be halted and appropriate evaluation and actions be taken should human remains be discovered during construction. Implementation of the mitigation measure would reduce potentially significant impacts associated with accidental discovery of human remains to a less-than-significant level.

3.6 GREENHOUSE GAS EMISSIONS

This section of the EIR includes discussion of the science of climate change, existing setting conditions, existing applicable policy and regulatory direction regarding climate change, the sources and projected volume of GHG emissions that would be generated by the proposed project, GHG emissions volume reductions that accrue to state legislation and regulations, GHG reductions from features included in the project as may be proposed, potential GHG emissions impacts in light of state and regional thresholds of significance, and additional GHG emissions reductions required as mitigation measures if necessary.

Information to prepare this section is based on a variety of sources, with key sources including results of CalEEMod emissions modeling as included in Appendix D, information in the San Luis Obispo County Air Pollution Control District's *CEQA Air Quality Handbook, a Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review* (2012).

No comments on GHG emissions or climate change were received as part of the NOP process.

Global, National, State, and Local Environmental Setting

Climate Change Science

The international scientific community has concluded with a high degree of confidence that human activities are causing an accelerated warming of the atmosphere. The resulting change in climate has serious global implications and consequently, human activities that contribute to climate change may have a potentially significant effect on the environment. In recent years, concern about climate change and its potential impacts has risen dramatically. That concern has translated into a range of international treaties and national and regional agreements aimed at diminishing the rate at global warming is occurring. The federal government has begun to tackle concerns about climate change through a range of initiatives and regulatory actions. Many states and local agencies, private sector interests, and other public and private interests have also taken initiative to combat climate change. At the state level, California has taken a leadership role in tackling climate change, as evidenced by the programs outlined in the Regulatory Setting section below.

Causes and Effects of Climate Change

Temperatures at the Earth's surface increased by an estimated 1.4°F (0.8°C) between 1900 and 2005. The past decade was the warmest of the past 150 years and perhaps the past millennium. The warmest 23 years on record have occurred since 1980. The years of 2005 and 2010 were the warmest on record for the United States (National Oceanic and Atmospheric Administration 2011). Scientific consensus is that this warming is largely the result of emissions of carbon dioxide and other greenhouse gases from human activities including industrial processes, fossil fuel combustion, and changes in land use, such as deforestation.

Unaddressed, climate change will have significant impacts across the United States and around the world. The generalized potential effects of climate change in California have been summarized by the California Environmental Protection Agency in its April 2006 report entitled, Climate Action Team Report to the Governor and the Legislature. Among the key effects are: substantially reduced availability of water supply; temperature increases projected at 8.0 to 10.4 degrees Fahrenheit (°F) under more severe emissions scenarios; exacerbation and acceleration of coastal erosion; impacts on surface water quality from seawater intrusion into the Sacramento Delta; general decline in agricultural production resulting from increased scarcity of water supply; increased vulnerability of natural areas and agricultural production from rising temperatures and increases in potential pest infestation; increased growth rates and expanded ranges of weeds, insect pests, and pathogens with elevated temperatures; increased energy demand especially during hot summer months; and economic impacts resulting from reduced winter recreation.

Numerous climate change models have been developed since the Climate Action Team report noted above was released in 2006. Over time, modelers have been refining the models themselves as well as the inputs to the models in an effort to more precisely project climate change impacts on more localized bases. For example, refined modeling of conditions in the San Francisco Bay Area conducted by Scripps Institute for Oceanography for the California Energy Commission suggests that by the end of the twenty-first century, warming could range from about 2°C to 6°C (about 3.5 °F to 11°F) under one model scenario, with temperatures averaging 1.5°C greater under a second scenario. The California Energy Commission has funded the Cal-Adapt program, which has developed an on-line compendium of climate change information for California that, among other things, identifies a range of future global warming scenarios that can be accessed interactively. This information can be found at: http://cal-adapt.org/page/about-caladapt.

Climate change may result in a range of consequences including the following:

- Increase in temperature: The years of 1995-2010 saw the warmest global temperatures that have ever been recorded since measurements began in 1850. Combined with longer summer seasons, increased temperatures over prolonged periods can reduce soil moisture level, which increases the need for many emissions-producing activities such as irrigation and air conditioning, and in turn, increase in demand for electrical generation and distribution infrastructure.
- Increase in rate of wildfires: Wildfire risk is based on a combination of factors including
 precipitation, winds, temperature, and vegetation, all of which are susceptible to the
 impacts of increased warming. Wildfires are expected to grow in number and size
 throughout the state as a result of increased temperatures induced by climate change.
- Deterioration of public health: Heat waves are expected to have a major impact on public health, to decrease air quality and increase mosquito-breeding and mosquito-borne diseases. The elderly, young, and poor, are vulnerable populations that do not have the resources to deal with the costs of health care or adapt to the changes that are expected to impact their communities.
- Decrease in supply and quality of fresh water: Warmer average global temperatures cause more rainfall than snowfall, making the winter snowfall season shorter and accelerating the rate at which the snow packs melt in the spring. A change to a liquid-precipitation system has the potential to reduce storage capacity (snowpack), water quality, and the accessibility of water for emergencies. With rain and snow events becoming less predictable and more variable, frequency of flood events could increase and reliability of fresh water supplies could decrease.
- Increase in residential electricity demands for cooling: Warming temperatures are
 predicted to cause significant increases in residential electricity demand for cooling in
 summer months, especially for residential developments built in warm, inland areas.
 Coupled with the negative impacts of increased temperatures on electrical infrastructure
 and earlier spring snowmelt on hydropower production, climate change could have
 significant impacts on energy supply in California.

- Reduction in the quality and quantity of agricultural products: Crops and food products that are likely to be affected include wine grapes, fruits, nuts, and milk. A 15 percent increase in land fallowing is expected to occur under a dry and warm climate scenario. Land fallowing would reduce agricultural productivity and affect the agricultural economies.
- Rise in sea levels resulting in the displacement of coastal businesses and residences: During the past century, sea levels along California's coast have risen about seven inches. If temperatures rise into the higher projected warming range, sea level is expected to rise an additional 16 to 55 inches by the end of the century. Changes of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- Damage to marine ecosystems and the natural environment.
- Decrease in the health and productivity of California's forests.

Although certain environmental effects are widely accepted to be potential hazards to certain locations, such as rising sea level for low-lying coastal areas, it is currently infeasible to predict all environmental effects of climate change on any one location, and thus would be speculative to do so.

The potential effects of climate change on Monterey County are related to temperature, precipitation, snowpack storage and water supply, extreme weather events, sea level rise, water supply, water quality, and agriculture.

Climate Change as a Cumulative Effect

Global climate change is, as the name implies, a global phenomenon. Greenhouse gas emissions released to the atmosphere from a variety of human activities and natural processes that occur across the globe are contributing to global warming. While the U.S. emits the largest per capita volume of GHGs of any country in the world, other major countries contribute substantial volumes of emissions that continue to grow on a per capita basis. Because climate change is a global phenomenon, it is highly unlikely that any one development project located anywhere in the world would have a significant individual impact on climate change. It is the sum total of contributions of development around the world that contribute to the problem. Hence, global climate change is inherently a cumulative effect.

The individual contribution of a project to GHGs in the atmosphere can generally be quantified in terms of volume of greenhouse gas emissions that it generates. However, the precise indirect effects of that contribution are difficult if not impossible to identify due to the complexity of local, regional, and global atmospheric dynamics and to the broad scale at which global warming impacts such as sea level rise, increase in weather intensity, decrease in snowpack, etc. are known to occur.

Greenhouse Gas Types and Warming Potentials

Gases that trap heat in the atmosphere are called greenhouse gases. GHGs are emitted by natural processes and human activities. The human-produced GHGs most responsible for global warming and their relative contribution it are carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons. The contribution of these GHGs to global warming is summarized in Table 7, GHG Types and Their Contribution to Global Warming.

Greenhouse Gas	Percent of all GHG	Typical Sources
Carbon dioxide (CO ₂)	83.0 percent	Combustion of fuels, solid waste, wood
Methane (CH ₄)	10.3 percent	Fuel production/combustion; livestock, decay of organic materials
Nitrous Oxide (N ₂ O)	4.5 percent	Combustion of fuels, solid waste; agricultural and industrial processes
Chlorofluorocarbons (CFCs)	2.2 percent	Industrial processes
Source: United States Environmental Protection Agency 2011		

 Table 7
 GHG Types and Their Contribution to Global Warming

Note: Percentages reflect weighting for global warming potential.

Each type of GHG has a different capacity to trap heat in the atmosphere and each type remains in the atmosphere for a particular length of time. The ability of a GHG to trap heat is measured by an index called the global warming potential expressed as carbon dioxide equivalent. Carbon dioxide is considered the baseline GHG in this index and has a global warming potential of one. Methane has a global warming potential of 21 times that of carbon dioxide and nitrous oxide has a global warming potential of 310 times that of CO_2 . The families of chlorofluorocarbons, hydrofluorocarbons, and perfluorocarbons have a substantially greater global warming potential than other GHGs, generally ranging from approximately 1,300 to over 10,000 times that of CO_2 . See Table 8, GHG Global Warming Potentials, for reference on the global warming potential of various GHGs. While CO_2 represents the vast majority of the total volume of GHGs released into the atmosphere, the release of even small quantities of other types of GHGs can be significant for their contribution to climate change.

GHG	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide CO ₂	50-200	1
Methane CH ₄	12 (+/- 3)	21
Nitrous Oxide N ₂ O	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC Tetrafluoromethane CF ₄	50,000	6,500
PFC Hexafluoroethane C ₂ F ₆	10,000	9,200
Sulfur Hexaflouride SF ₆	3,200	23,900

 Table 8
 GHG Global Warming Potentials

Source: United Nations Framework Convention on Climate Change. Global Warming Potentials at: http://unfccc.int/ghg_data/items/3825.php.

The GHG volume produced by a particular source is often express in terms of carbon dioxide equivalent (CO_2e). Carbon dioxide equivalent describes how much global warming a given type of GHG will cause, with the global warming potential of CO_2 as the base reference. It is useful because it allows comparisons of the impact from many different GHGs, such as methane, perfluorocarbons, or nitrous oxide. If a project is a source of several types of GHGs, their individual global warming potential can be standardized and expressed in terms of CO_2e .

Inventories of Greenhouse Gases

World/U.S. Estimates of GHG Emissions. In 2004, total worldwide GHG emissions were estimated to be 49,000 teragrams carbon dioxide equivalent (Intergovernmental Panel on Climate Change, 2007). A teragram equals one million metric ton. In 2009, U.S. GHG emissions were 6,633.2 teragrams carbon dioxide equivalent (CO_2e). GHG emissions vary annually due to factors such as weather, economic conditions, and cost of various energy sources. The highest GHG emissions year in the United States was 2007, with total emissions of 7,263 teragrams CO_2e . In 1990, the year frequently used as a baseline for emissions, GHG emissions in the United States were 6,182 teragrams CO_2e (United States Environmental Protection Agency, 2011).

California GHG Emissions Inventory. California is a substantial contributor of global greenhouse gases. Based on CARB's most recent state GHG inventory, a net of about 451.6 million tons of CO₂e were generated in 2010 (California Air Resources Board 2013). In 2010,

about 38 percent of all GHG gases emitted in the state came from the transportation sector. Electric power generation (in state generation and out of state generation for imported electricity) and industrial uses were the second and third largest categories at about 21 percent and 19 percent, respectively. The commercial and residential use sectors combined to generate about 10 percent of the 2010 emissions, while the agricultural sector contributed about seven percent. Other sources include high global warming potential gases at about three percent and landfill waste emissions at about two percent of the total state inventory.

Monterey County GHG Emissions Inventory. Greenhouse gas emissions generated in Monterey County represent a small fraction of the statewide emissions inventory. In 2006, the county conducted a GHG emissions inventory as part of its general plan update. Table 4.16-1 in the *Monterey County Draft Environmental Impact Report, Monterey County 2007* includes the results of the inventory (Monterey County 2008). At that time, about 1,394,404 metric tons (MT) of CO2e was estimated to have been generated in the county. This compares to approximately 484 MT of CO₂e emitted in California in 2006. As with most cities and counties in the state, the primary source of GHG emissions is the transportation (cars and trucks). On-road sources of emissions accounted for about 46 percent of all emissions generated in the county. Approximately 15 percent of total emissions were created by electricity generation, 14 percent by industrial processes, 13.6 percent from combustion of natural gas, 8 percent from agricultural equipment fuel use, and 2 percent from landfill emissions.

Existing Sources of GHG Emissions within the Project Site

Current agricultural activities within the project site are sources of GHG emissions. Mobile source GHG emissions from operation of agricultural machinery and indirect emissions from energy generated to pump irrigation water would be the primary sources. Given the size of the project site, the volume of baseline GHG emissions from these activities would be nominal and is not considered further in this analysis.

Policy and Regulatory Setting

Federal, state, regional, and local policy and regulations pertaining to climate change are summarized below to provide context for the frameworks under which management of climate change and the GHGs that contribute global warming are being addressed.

Federal

The U.S. EPA is the federal agency with responsibility for implementing federal policy for addressing GHG. The federal government has promulgated and implements a multitude of policies and programs for managing climate change through direction for reducing GHG

emissions. The programs center largely on vehicle fuel efficiency, energy efficiency, renewable energy, methane and other non- CO_2 gases, agricultural practices, and supporting research on and commercialization of GHG reduction technologies. In addition, the EPA implements a range of voluntary programs such as the Energy Star labeling system that support energy conservation and its attendant GHG reduction benefits.

In December 2009, the U.S. EPA issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. The final findings were published in the Federal Register on December 15, 2009 and became effective on January 14, 2010.

On May 13, 2010, the U.S. EPA issued a Final Rule that took effect on January 2, 2011, setting a threshold of 75,000 MT CO₂e per year for GHG emissions. New and existing industrial facilities that meet or exceed that threshold will require a permit after that date. On November 10, 2010, the U.S. EPA published the "PSD and Title V Permitting Guidance for Greenhouse Gases." The document is directed at state agencies responsible for air pollution permits under the Federal Clean Air Act to help them understand how to implement GHG reduction requirements while mitigating costs for industry. On January 2, 2011, the U.S. EPA implemented the first phase of the Tailoring Rule for GHG emissions Title V Permitting. Under the first phase of the Tailoring Rule, all new sources of emissions are subject to GHG Title V permitting if they are otherwise subject to Title V for another air pollutant and they emit at least 75,000 MT CO₂e per year. On July 3, 2012 the U.S. EPA issued the final rule that retains the GHG permitting thresholds that were established in Phases 1 and 2 of the GHG Tailoring Rule.

Federal regulation of GHGs can occur through other means, such as fuel efficiency standards. A new national policy to increase fuel economy for all new cars and trucks sold in the United States, the Corporate Average Fuel Economy emissions standards, has been put into place. The new standards would cover model years 2012 through 2016, and would require an average fuel economy standard of 35.5 miles per gallon in 2016. The EPA and the National Highway Traffic Safety Administration, on behalf of the U.S. Department of Transportation, released a notice of intent to conduct joint rulemaking to establish vehicle GHG emissions and fuel economy standards in May 2009. The final standards were adopted by the U.S. EPA and the Department of Transportation on April 1, 2010. On August 28, 2012, the U.S. EPA and the National Highway Traffic Safety Administration issued Final Rulemaking to extend the Corporate Average Fuel Economy Standards to model year 2017 through 2025 passenger vehicles. On April 13, 2012, the U.S. EPA published a proposed rule to establish a new source performance standard for GHG emissions.

Through the Renewable Fuel Standard program, the U.S. EPA is also responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States

contains a minimum volume of renewable fuel. By 2022, the Renewable Fuel Standard program will reduce GHG by 138 million MT, about the annual emissions of 27 million passenger vehicles, replacing about seven percent of expected annual diesel consumption.

On August 3, 2015, the U.S. EPA issued the Clean Power Plan, which put the nation on track to cut harmful pollution from the power sector by 32 percent below 2005 levels, while also cutting smog-and soot-forming emissions that threaten public health by 20 percent.

State of California

State policy and regulatory guidance has grown out of its effort to meet goals under the landmark Global Warming Solutions Act, which was passed in 2006 as California Assembly Bill 32 ("AB 32"). Several other legislative acts, executive orders, and opinions from the California State Attorney General have provided further GHG emissions reduction guidance and reinforced CEQA as the appropriate evaluation tool for assessing climate change impacts of new development.

California Assembly Bill 32. AB 32, the California Global Warming Solutions Act of 2006, requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. Among its key components are:

- Identify a list of discrete early action GHG emission reduction measures that can be implemented prior to the adoption of the statewide GHG limit and the measures required to achieve compliance with the statewide limit;
- Adopt a statewide GHG emissions limit that is equivalent to the 1990 level (an approximate 25 percent reduction in existing statewide GHG emissions);
- Adopt regulations to implement the early action GHG emission reduction measures;
- Adopt quantifiable, verifiable and enforceable emission reduction measures by regulation that will achieve the statewide GHG emissions limit by 2020, to become operative on January 1, 2012 at the latest; and
- Monitor compliance with and enforce adopted emission reduction measures.

The state is continuing to work to meet the milestones for implementing AB 32.

Scoping Plan. CARB's AB 32 Scoping Plan, which was adopted in December 2008, contains the main strategies California would pursue to reduce GHGs by approximately 169 MMT by the year 2020, or a reduction of approximately 30 percent from the 2020 projected emissions level of 596 MMT under a business as usual scenario. The business as usual scenario refers to GHG emissions that would occur in the future in the absence of implementing GHG reduction

strategies included in the Scoping Plan. GHG reduction strategies include, but are not limited to: reducing emissions from light-duty vehicles, implementing a range of energy efficiency measures including building and appliance energy efficiency, increasing the percentage of electricity generated by renewable sources, and implementing a cap-and-trade program. With regard to land use planning, the Scoping Plan expects a GHG reduction of approximately 5.0 MMT CO₂e would be achieved with implementation of Senate Bill 375 (SB 375), discussed further below.

AB 32 does not mandate action at the local level. However, the Scoping Plan identifies that local agencies should strive to reduce GHG emissions within their boundaries by 15 percent from 2008 levels by 2020 to help achieve emissions reductions needed to meet AB 32 goals.

Since the Scoping Plan was adopted, many of the measures included in it have been implemented or are in the process of being implemented. Among the most notable are implementation of the Low Carbon Fuel Standard, the Renewable Portfolio Standard, and a GHG emissions cap-and-trade program. Under cap-and-trade, an overall limit on GHG emissions from capped sectors has been established and facilities subject to the cap will be able to trade permits (allowances) to emit GHGs. The program started on January 1, 2012. Enforceable compliance obligations started in 2013. The program applies to facilities that comprise 85 percent of the states GHG emissions.

In August 2011, CARB released the *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document* (California Air Resources Board 2011). The supplement was prepared to provide a more in-depth analysis of the five alternatives to the Scoping Plan that were originally included in that document. The supplemental analysis was conducted in response to litigation brought against CARB which challenged the adequacy of the alternatives analysis contained in the Scoping Plan. The supplement includes an update of the business as usual GHG emissions projections that were contained in the Scoping Plan. The update is based on more recent economic conditions (including the economic downturn) and on reduction measures from the Scoping Plan that are already in place. The updated 2020 business as usual emissions forecast of 507 MMT CO_2e is lower than that contained in the 2008 Scoping Plan. With this forecast, only a 16 percent reduction below business as usual GHG emissions levels would be needed to return to 1990 levels (e.g. 427 MMT CO_2e) by 2020.

First Update to the 2008 Climate Change Scoping Plan. In response to comments on the 2008 Scoping Plan, and AB 32's requirement to update the Scoping Plan every five years, CARB revised and reapproved the Scoping Plan, and prepared the First Update to the 2008 Scoping Plan in 2014 (2014 Scoping Plan). The 2014 Scoping Plan contains the main strategies California will implement to achieve a reduction of 80 MMT of CO_2e emissions, or approximately 16 percent, from the state's projected 2020 emission level of 507 MMT of CO_2e under the business as usual conditions scenario defined in the 2014 Scoping Plan. The 2014 Scoping Plan

also includes a breakdown of the amount of GHG reductions CARB recommends for each emissions sector of the state's GHG inventory. The 2014 Scoping Plan includes several strategies to reduce GHG emissions, including the Low Carbon Fuels Standard, the Pavley Rule, the Advanced Clean Cars program, the Renewable Portfolio Standard, and the Sustainable Communities Strategy.

California Senate Bill 97. Senate Bill 97 ("SB 97"), signed in August 2007, directed the California Office of Planning and Research to prepare, develop, and transmit to the Natural Resources Agency guidelines for the feasible mitigation of GHG emissions adopted those guidelines in January 2010. SB 97 also describes the CEQA process as an appropriate tool for addressing and mitigating global warming impacts from new development projects that are subject to CEQA. In 2009, the California Office of Planning and Research adopted amendments to the CEQA Guidelines as directed by SB 97. The amendments provide guidance about analysis and mitigation approaches to incorporate into environmental documents.

In June 2008, the California Office of Planning and Research released a Technical Advisory entitled *CEQA and Climate Change: Addressing Climate Change through CEQA Review.* The California Office of Planning and Research recommended an analysis methodology that includes: 1) identifying sources of GHG emissions; 2) making a good-faith effort to calculate, model, or estimate the amount of GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities; 3) determining the significance of the project GHG emissions; and 4) identifying and adopting feasible mitigation measures to reduce the identified impact if it is determined to be significant.

California Senate Bill 375 (Sustainable Communities Strategy). This 2008 bill sets forth a mechanism for coordinating land use and transportation on a regional level for the purpose of reducing GHGs. The focus is to reduce miles traveled by passenger vehicles and light trucks. CARB is required to set GHG reduction targets for each metropolitan region for the years 2020 and 2035. Each of California's metropolitan planning organizations then prepares a sustainable communities strategy that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning. Once adopted by the metropolitan planning organizations, the sustainable communities strategy is to be incorporated into that region's federally enforceable regional transportation plan. If a metropolitan planning organization is unable to meet the targets through the sustainable communities strategy, then an alternative planning strategy must be developed which demonstrates how targets could be achieved, even if meeting the targets is deemed to be infeasible.

Local agencies that adopt land use, housing, and transportation policies that are consistent with and facilitate implementation of the related GHG reduction strategies in an sustainable communities strategy benefit through potential CEQA streamlining for qualifying projects proposed within their boundaries. Adoption of such policies can be a part of a general plan
update or other similar policy adoption process. However a local agency's general plan is not required to be consistent with a sustainable communities strategy.

The Association of Monterey Bay Area Governments is the local metropolitan planning organization charged with implementing SB 375 emission reduction targets set by CARB. The Association of Monterey Bay Area Governments is the metropolitan planning organization for San Benito, Monterey, and Santa Cruz Counties and their incorporated cities. The *Metropolitan Transportation Plan and Sustainable Communities Strategy* (Association of Monterey Bay Area Governments 2014) was adopted in June 2014. The sustainable communities strategy includes a proposed regional land use and transportation scenario designed to meet the regional GHG reduction target set by CARB.

Title 24 Standards/Energy Conservation. California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were first established in 1978 to reduce California's energy consumption. The standards were most recently updated in January 2010. Energy efficient buildings require less electricity, natural gas, and other fuels, the use of which creates GHG emissions.

California Assembly Bill No. 1493 ("Pavley I Rule"). AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks by improving fuel efficiency requirements. Pavley I requirements apply to these vehicles in the model years 2009 to 2016. CARB has estimated the effectiveness of Pavley I standards on vehicle emission factors and estimates that these standards will reduce GHG emissions in the transportation sector by 20 percent in 2020 and 25 percent in 2035 above and beyond a scenario without these standards.

Advanced Clean Cars. In January 2012, CARB adopted an Advanced Clean Cars program Jan. 27, which is aimed at reducing both smog-causing pollutants and GHG emissions for vehicles model years 2017-2025. Advanced clean cars refers to a suite of regulations that combine what were previously independent regulations and that targeted GHG emissions reductions and smog emissions from passenger cars and light-duty trucks. The regulations focus on substantially increasing the number of plug-in hybrid cars and zero-emission vehicles in the vehicle fleet and on making fuels such as electricity and hydrogen readily available for these vehicle technologies.

The ACC program would provide major reductions in mobile source GHG emissions. By 2020, CO_2e emissions would be reduced by three percent, 12 percent by 2025, 27 percent by 2035, and 33 percent by 2050 (California Air Resources Control Board – No Date, Table 2).

Renewable Energy Legislation/Orders. The California Renewable Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20 percent of their retail sales with renewable

power by 2017, was established by SB 1078 in 2002. The renewable portfolio standard was accelerated to 20 percent by 2010 by SB 107 in 2006. The program was subsequently expanded by the renewable electricity standard approved by CARB in September 2010, requiring all utilities to meet a 33 percent target by 2020. On October 7, 2015, the Governor signed Senate Bill 350, which raises the 33 percent target to 50 percent by 2030.

Executive Order S-3-05. The Governor announced on June 1, 2005, through Executive Order S-3-05, GHG emission reduction targets as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. Some literature equates these reductions to 11 percent by 2010 and 25 percent by 2020.

Executive Order S-01-07. Issued on January 18, 2007, this order mandates that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 and that a Low Carbon Fuel Standard for transportation fuels be established. The Low Carbon Fuel Standard has been developed and implemented by CARB. CARB has incorporated the GHG emissions reductions accruing to the Low Carbon Fuel Standard into the 2014 Scoping Plan as described above.

Executive Order S-13-08. This Executive Order enhances the state's management of climate impacts from sea level rise, increased temperatures, shifting precipitation and extreme weather events. In December 2009, the California Natural Resources Agency released the 2009 California Climate Adaptation Strategy Discussion Draft. The document provides interim guidance to state and local agencies on planning for the impacts and risks of climate change.

Executive Order B-30-15. Issued on April 29, 2015, this order advances the intent of Executive Order S-3-05 by establishing a California GHG reduction target of 40 percent below 1990 levels by 2030. The order aligns California's GHG reduction targets with those of leading international governments. The new emission reduction target of 40 percent below 1990 levels by 2030 is intended to facilitate the state's goal of reducing emissions 80 percent under 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below two degrees Celsius - the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels.

Title 24 Standards/Energy Conservation. California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were first established in 1978 to reduce California's energy consumption. The Scoping Plan requires improved building energy efficiency with each new update to the Title 24, which is updated every three years. The standards were most recently updated in January 2013. Energy efficient buildings require less electricity, natural gas, and other fuels, the use of which creates GHG emissions. The 2013 update requires new buildings to become even more energy-efficient than

ever before by increasing the efficiency of new construction by 25 percent for residential uses and 30 percent for non-residential uses, compared to the previous 2008 Title 24 standards.

California Green Building Standards Code. The Green Building Standards Code ("CALGreen"), which requires all new buildings in the state to be more energy efficient and environmentally responsible, took effect on January 1, 2011. These comprehensive regulations will achieve major reductions in greenhouse gas emissions, energy consumption and water use to create a greener California.

California Air Pollution Control Officers Association

The California Air Pollution Control Officers Association has prepared three guidance documents that together describe methods for quantifying GHG emissions and mitigation measures. The first document, *CEQA and Climate Change*, was released in 2008 and describes methods to estimate and mitigate GHG emissions from projects subject to CEQA. This report evaluates several GHG thresholds that could be used to evaluate the significance of a project's GHG emissions. The second document, *Model Policies for Greenhouse Gases in General Plans*, provides background information, examples, references, links, and a systematic worksheet to help local governments in moving toward GHG considerations in General Plan updates, or in the development of specific Climate Action Plans. In cooperation with the Northeast States for Coordinated Air Use Management and the National Association of Clean Air Agencies, California Air Pollution Control Officers Association released a third document, *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures*, in August 2010. The document provides methodologies to quantify project-level mitigation of GHG emissions associated with land use, transportation, energy use, and other related project areas.

Monterey Bay Unified Air Pollution Control District

The air district has been in the process of developing guidance for evaluation of GHG emissions impacts for several years. In June 2011, the air district proposed interim thresholds of significance for use in the CEQA analysis process. After release of the interim guidance, the air district consulted with various stakeholders regarding the proposed thresholds. To date, the air district has not formally adopted thresholds of significant or other district-specific guidance regarding analysis of GHG impacts as part of the CEQA process. However, the air district has been informally recommending that local lead agencies consider using thresholds of significance adopted by the San Luis Obispo Air Pollution Control District ("SLO air district") as described in its CEQA Air Quality Handbook, a Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review (San Luis Obispo County Air Pollution Control District 2012), until such time as

the air district formally adopts its own thresholds of significance. Information about the SLO air district guidelines is provided in the Thresholds or Standards of Significance section below.

Standards of Significance

CEQA Guidelines Appendix G indicates that a project may have a significant effect on the environment if it would:

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

Selected Thresholds of Significance

Though climate change is a cumulative, global issue, impacts of individual projects on climate change as assessed in the CEQA process are generally considered relative to the climate change context at the state, regional, and/or local jurisdiction boundary scale. CEQA thresholds of significance for GHG emissions address whether the incremental cumulative contribution of a specific project to GHG emissions is significant at the state, regional, and/or local scale. At the state scale, consistency with AB 32 has been used as a threshold of significance since AB 32 is intended to reduce GHG emissions generated within the state. Where regional or local plans for reducing GHG emissions have been adopted, the thresholds contained in those plans generally serve this function. However, quantified thresholds of significance for GHG emissions have not yet been adopted by CARB at the state level, the air district at the regional level, or at the local level by the air district.

Despite the fact that applicable state, regional, or local quantified thresholds of significance have not been adopted, the SLO air district has developed and adopted quantified GHG emissions thresholds of significance that can serve as guidance for assessment of GHG impacts for projects located within the air district boundary. As noted in the Regulatory Setting section above, the air district has informally recommended that until it develops and adopts its own thresholds of significance, use of the SLO air district thresholds is appropriate for evaluating GHG impacts of projects within the air district boundary. The SLO air district thresholds are based on an analysis methodology contained in the SLO air district's *Greenhouse Gas Thresholds and Supporting Evidence* (San Luis Obispo County Air Pollution Control District 2012). That document presents the methodology and substantial evidence used to determine the thresholds. The school district has not adopted the SLO air district thresholds, but is referring to them based on the recommendation of the air district. The SLO air district's *CEQA Air Quality Handbook, a Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review* contains its GHG thresholds. One of three thresholds can be used to assess the significance of a project's GHG impacts: 1) consistency with a qualified GHG reduction plan, 2) generation of 1,150 MT (MT) CO_2e per year or less, or 3) generation of 4.9 MT CO_2e per service population per year. Regarding the third threshold, the service population is defined as the sum of the new resident population and new employees generated by a land use development project. A development's total GHG emissions volume is divided by the service population to yield a GHG efficiency metric that is presented in terms of MT of CO_2e per service population per year.

In the broadest context, the thresholds were established to guide development within the boundaries of the SLO air district to reduce GHG emissions to a level deemed insignificant by the SLO air district for the year 2020. These thresholds provide an understanding of GHG emissions volumes above which the SLO air district has concluded, based on substantial evidence, that the impact of the contribution of GHG emissions from individual projects should be deemed significant.

Executive Order B-30-15 – **Year 2030 GHG Emissions Target.** As described in the Policy and Regulatory Setting section above, Governor Brown issued Executive Order B-30-15 in April 2015. It establishes a year 2030 GHG reduction target of 40 percent below 1990 levels by 2030. The 2030 target is intended to serve as the successor to the 2020 target of 29 percent below business as usual as established in AB 32 and the Scoping Plan. At this time, the new target has not yet been promulgated into regulatory guidance by CARB or any other state agency, though the order directs CARB to update the Scoping Plan to express the 2030 target. The executive order does inherently constitute a regulation or requirement adopted to implement a statewide, regional or local plan for the reduction of GHG reduction plan established for the purpose of mitigating GHG impacts. The executive order includes a new policy goal, and cites evidence that it is based on the best current science, but it does not appear to implement, interpret or make specific a law that is currently in force and enforced by any public agency.

Like many local air districts, the SLO air district has not yet determined if and when it will modify its current GHG CEQA guidance to reflect the new 2030 target. It is likely that the SLO air district, as well as other air districts and local lead agencies, will look to CARB to incorporate the new target into the next Scoping Plan update and/or into specific regulatory direction before revising existing or adopting new plans for the reduction of GHG emissions pursuant to CEQA Guidelines section 15064.4.

In light of the above discussion and the fact that the proposed project would be operational prior to 2020 - the emissions reduction target year embedded in the SLO air district's current CEQA guidance, that guidance and the thresholds it contains remain applicable for assessing the GHG impacts of the proposed project.

Analysis, Impacts and Mitigation

Potential impacts of the proposed project are evaluated in this EIR at the level of detail commensurate with the project description provided in Section 2.0, Project Description.

Analysis Methodology

The methodology for assessing GHG impacts in this EIR is generally as follows: 1) calculate projected construction phase and annual operational emissions from future uses; 2) amortize construction emissions to determine annual volume and add the annual volume to projected new annual projected operational emissions to arrive at total new annual projected emissions; 3) subtract emissions reductions resulting from state legislative/regulatory actions to reduce GHGs; 4) compare net new projected emissions to the SLO air district threshold of significance and determine impact significance; 5) if the impact is significant, subtract GHG reductions from school district measures included in the project description; 6) if the impact remains significant, apply feasible mitigation measures to further reduce emissions and calculate mitigated project GHG volume; and 7) reassess mitigated annual emissions volume against the SLO air district threshold and determine mitigated project impact significance.

The determination of whether the proposed project generates a significant volume of GHG emissions evaluation of GHG emissions that could have a significant impact on the environment is based on the project GHG emissions volumes and a comparison of the emissions volumes to the SLO air district's 4.9 MT CO₂e per service population per year threshold of significance. The proposed project is anticipated to employ a daily average of 45 people. It would not generate new resident population. However, the SLO air district considers schools to be a public use and a public use is considered to be a land use development project for which the service population threshold is applicable. The students who would attend a school are a component of the service population (Telephone communication with Andy Mutziger, San Luis Obispo County Air Pollution Control District, December 16, 2015). The school would have a capacity of about 800 students. Therefore, the project service population is equivalent to 45 employees plus 800 students, or 845.

GHG emissions from existing sources within the project site, from construction of the proposed project, and from annual operations of the proposed project have been estimated using CalEEMod Version 2013.2.2. For CalEEMod assumptions used in modeling GHG emissions, please refer to the *SUHSD New Middle School GHG/AQ CalEEMod Emissions Assessment* ("GHG/AQ Memo") in Appendix D. The CalEEMod summary results are also included in Appendix D after the GHG/AQ Memo.

CalEEMod includes updated vehicle emission factors that incorporate GHG reductions from Pavley I and low carbon fuel standard regulations described in the Policy and Regulatory section above.

IMPACT: THE PROJECT WOULD GENERATE GHG EMISSIONS (LESS THAN SIGNIFICANT)

The proposed project would generate GHG emissions both during its construction phases and operations phases. The following analysis follows the methodology described above.

Unmitigated Construction Emissions. Table 2.1, Overall Construction - Unmitigated Construction, in the CalEEMod results in Appendix D shows the one-time GHG emissions from construction operations that would occur over a two-year period. Note that both unmitigated and mitigated construction emissions shown in section 2.1 of the appendix are the same, as no construction mitigation options available in CalEEMod were activated.

Construction emissions would total 1,769.81 MT CO_2e . Defaults provided in CalEEMod have been used for the number and type of construction equipment to be utilized during the construction process and for other construction emissions.

Unmitigated Annual Operational Emissions. Operational or long-term annual GHG emissions are constant, recurring emissions that are generated over the life of a project. The primary classes of operational GHG emission sources for the proposed project are as follows:

- Mobile Sources GHG emissions from mobile transportation sources are typically the largest contributor to a land use project's GHG emissions inventory. These emissions will be generated by a variety of transportation vehicle types given the project type. These include, but are not limited to: car and truck trips associated with employees and students, school bus trips, light – and heavy-duty transport and delivery trucks, and service vehicles of varying types.
- Area Sources Area sources generally refer to GHG emissions generated with a project site from combustion of natural gas for heating or other processes.
- Energy Sources use of electricity with a project site is the most common indirect source of GHG emissions. GHG emissions are generated from the off-site generation of electricity consumed within the project site. While implementation of the Renewable Portfolio Standard is shifting grid based electricity generation towards renewable sources that do not produce GHG emissions, the bulk of electricity used in California is produced using fuels, the combustion of which generates GHGs.

- Water Supply pumping, treating and distributing water can be a significant source of electricity demand, and indirectly a source of GHG emissions.
- Waste methane, a powerful GHG, is a by-product of the anaerobic decomposition of solid waste that is delivered to a landfill for burial and may be a product of decomposition of biosolids contained in wastewater treated at wastewater treatment plants. The proposed project would generate this type of GHG as a result of the generation of solid waste that will be delivered to a landfill. The proposed project will also result in an increase in electricity consumption at the regional wastewater treatment plant through its contribution of wastewater that requires treatment.

Table 9, Unmitigated Operational plus Amortized Construction GHG Emissions, shows the projected annual unmitigated operational emissions. These values are taken from section 2.2, Overall Operational - Unmitigated Operational, of the CalEEMod model results in Appendix D. GHG emissions would total approximately 1,601 MT CO₂e per year. Note that both unmitigated and mitigated operational emissions shown in section 2.2 are the same, as no operational mitigation options available in CalEEMod were activated. The table also shows the annual construction emissions volume amortized over 30 years, and a total annual emissions volume for the proposed project. As is also shown, GHG emissions from the proposed project would be equivalent to 1.96 MT CO₂e per service population per year and do not exceed the 4.9 MT CO₂e per service population per year threshold of significance.

New development projects commonly generate a majority of their operational GHG emissions from mobile sources, including cars and trucks. This is true for the proposed project.

Legislative and Regulatory Emissions Reductions. As was noted in the Regulatory Setting section above, the state has adopted a range of legislative and regulatory measures for the purpose of reducing statewide GHG emissions. The continued implementation of measures relevant to the proposed project would further reduce GHG emissions associated with the proposed project. The following discussion is included to illustrate the applicability of these measures and the relative magnitude of additional GHG reductions that would accrue to them.

In developing its thresholds of significance, the SLO air district did not account for emissions reductions that accrue to several important state legislative and regulatory GHG reduction strategies. These include the Pavley I rule, the renewable portfolio standard, and 2013 Title 24 building energy conservation measures. GHG reductions from state actions whose implementation has already begun are reasonably foreseeable. Therefore, reductions from such legislation and regulations can be deducted from the gross volume of unmitigated GHG emissions identified in Table 9, Unmitigated Operational plus Amortized Construction GHG Emissions, above. The CalEEMod model already incorporates reductions from the Pavley I and Low Carbon Fuel Standard standards. Therefore, further reductions from these standards cannot

be taken from the unmitigated emissions volume shown in Table 9, Unmitigated Operational plus Amortized Construction GHG Emissions. Legislative and regulations standard reductions that can be deducted and their reduction value are identified in Table 10, Applicable Legislative and Regulatory Emissions Reductions, Applicable Legislative and Regulatory Emissions Reductions. Implementation of advanced clean cars regulations does not begin until 2017. For this reason and to be conservative, related emissions reductions are not assumed in this analysis.

	Bio CO ₂	NBio CO ₂	CH_4	N_2O	CO_2e^1
Area Source	0.00	0.02	0.00	0.00	0.02
Energy	0.00	340.03	0.01	0.00	341.61
Mobile Source	0.00	1,150.51	0.05	0.00	1,151.71
Waste	37.19	0.00	2.19	0.00	83.26
Water	0.77	20.71	0.07	0.01	23.80
Subtotal Operational Emissions				1,600.40	
Subtotal Amortized Construction Emissions (1,769.81/30 years)				58.99	
Total Unmitigated Annual GHG Emissions			1,659.39		
Service Population = 845					
Service Population GHG Emissions = 1.96 MT CO ₂ e per service population per year					

Table 9Unmitigated Operational plus Amortized Construction GHGEmissions (MT/year)

Source: CalEEMod; EMC Planning Group 2016.

Notes: Abbreviations: CH_4 – methane, CO_2 - carbon dioxide, N_2O - nitrogen dioxide, CO_2e - carbon dioxide equivalents. Bio CO_2 represents emissions generated by biological processes, primarily decomposition of solid waste from existing development that is delivered to landfills and decomposition of wastewater in the wastewater treatment process. NBio CO_2 represents CO_2 emissions generated by all other sources, primarily fossil fuel combustion.

 1 Values may differ slightly from sum of row totals due to rounding and multiplication of CH₄ and N₂O values by their respective global warming potentials.

Table 11, Annual GHG Emissions Reductions from Legislative and Regulatory Actions, shows reduction volumes that result when the legislative and regulatory reductions shown in Table 11, Applicable Legislative and Regulatory Emissions Reductions, are applied to the unmitigated project emissions shown in Table 9, Unmitigated Operational plus Amortized Construction GHG Emissions. With these reductions, emissions from the proposed project drop to 1.71 MT CO_2e per service population per year.

Legislation/Regulation	Reduction Sector	Percent Reduction
Renewable Portfolio Standard	Energy/Water	31.3 percent in 2020 ¹
Title 24, Part 6, Building and Appliance Energy Efficiency	Energy	30 percent (non-residential) in 2020 ²
<i>Source:</i> EMC Planning Group 2016.		

Table 10 Applicable Legislative and Regulatory Emissions Reductions

Note: ¹California Public Utilities Commission at: http://www.cpuc.ca.gov/PUC/energy/Renewables/. Figure shown is the percentage of RPS required procurement of 33 percent that PG&E has under contract for 2020. As of 2014, 27.0 percent of procurement was from renewable sources http://www.pge-corp.com/corp_responsibility/reports/2015/bu06_renewable_energy.jsp.
 ²Non-residential reductions at 30 percent per California Energy Commission 2013 Building Energy Efficiency Standards Adoption Hearing Presentation at: http://www.energy.ca.gov/title24/2013standards/rulemaking/documents/2012-05-

31_2013_standards_adoption_hearing_presentation.pdf.

Table 11Annual GHG Emissions Reductions from Legislative and Regulatory Actions
(MT CO2e/year)

Reduction Source	Emissions	Percent	Unmitigated	Volume
	Sector	Reduction	Volume	Reduction
Renewable Portfolio Standard		31.3 ¹	341.61	106.92
Title 24, Part 6, Building and Appliance Energy Efficiency	Energy	30.0	341.61	102.48
Renewable Portfolio Standard	Water	31.3	20.71 ²	6.48
Total Legislative/Regulatory R	215.88			
Balance of Unmitigated Annual Emissions (1,659.39 - 215.88)				1,443.51
Service Population = 845				
Service Population GHG Emissions = 1.71 MT CO ₂ e per service population per year				

Source: EMC Planning Group 2016.

Note: ¹Renewable Portfolio Standard of 31.3 percent ²The NBio value for water emissions volume from Table 3.6-3 is used as it best accounts for the energy use component of water sector GHG emissions.

The legislative/regulatory emissions reductions shown in Table 11, Annual GHG Emissions Reductions from Legislative and Regulatory Actions, are conservative as they do not reflect additional legislation and regulations that will result in accelerated emissions reductions after 2020. For example, California's Long-Term Energy Efficiency Strategy, adopted in 2008, has set aggressive goals that will be implemented through future updates to the Building Energy Efficiency Standards in 2016 and beyond; by 2030, all new non-residential construction will be required to achieve zero net GHG emissions. As other examples, the Governor recently signed legislation that requires the renewable portfolio standard procurement to increase to 50 percent by 2030, and advance clean cars regulations will result in substantially increased GHG reductions as the vehicle fleet transitions to a higher and higher percentage of zero emission vehicles beyond the year 2020.

School District Proposed GHG Reduction Measures. Although the proposed project would have a less-than-significant impact from GHG emissions, the school district has elected to include additional GHG reduction mitigation in the proposed project. This is being done to show good-faith effort to contribute to GHG reductions through project specific measures. The school district has included energy related GHG reduction features in the project description as described in Section 2.3, Project Description. These features include: 1) cool roofs to reduce air conditioning energy consumption; 2) high efficiency LED lighting; 3) high efficiency heating and ventilation control systems with integrated programmable thermostats; and 4) Energy Star or equivalent appliances. These measures will incrementally further reduce GHG emissions from the proposed project.

Based on the analysis above, the proposed project would have a less-than-significant impact. GHG emissions would not exceed the SLO air district threshold of significance of 4.9 MT per service population per year as established in its CEQA Air Quality Handbook, a Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review, which is the SLO air district's plan for reducing GHG emissions. No mitigation measures are required.

3.7 HAZARDS AND HAZARDOUS MATERIALS

This section of the EIR discusses the potential presence of hazardous materials and conditions on and near the project site, and analyzes the potential risk of any such conditions in proximity to existing and proposed development. Comment letters on the NOP included concerns regarding previous, current and future use of hazardous materials (including pesticides), and other potential health impacts resulting from placement of the school site at the proposed location.

As required by the State Department of Education prior to acquisition of a school site (California Education Code section 17213.1), the Phase 1 Environmental Site Assessment Proposed New School Site Probert/Matsui Property North of East Boronda Road Salinas, California. ("Phase I ESA") was prepared for the proposed project by Kleinfelder, Inc. in 2009 and the *Revised Preliminary Environmental Assessment Report, Creekbridge Middle School Site, APNs 153-091-006; 153-091-007, Salinas, California* ("PEA") was prepared by Kleinfelder, Inc. in 2010. These reports are presented in Appendix F and Appendix G. Results of the Phase I ESA and PEA prepared for the site are summarized below.

Environmental Setting

On-Site Uses

The project site is currently in agricultural production. The only built environment components on the project site include irrigation system features (e.g. a well, a pump, and irrigation piping) and barbed wire fencing. There is one pole-mounted transformer located near the northern edge of the site.

Surrounding Uses

Properties surrounding the project site are in agricultural production. The only roads within the immediate vicinity of the project site are private unpaved dirt roads that provide access to the project site and adjacent properties. Residential uses and urban development and infrastructure extend southward from East Boronda Road to the south of the site.

Phase I ESA Findings

According to the Phase I ESA (Kleinfelder 2009), the site has been used for agricultural purposes from at least 1956 to the present day. Legal application of pesticides on agricultural properties can result in elevated concentrations of metals and pesticides in soil and some farming practices included mixing pesticides with irrigation water in ponds. The report stated that an on-site transformer may have leaked polychlorinated biphenyls (PCBs) into the soil and that a fivegallon bucket containing hydraulic fluid was found on-site. The report determined that future development of the middle school may accidentally expose the children attending the school to hazardous levels of pesticides present in the soil or to hazardous materials present on the site. The Phase I ESA recommended a soil investigation to assess concentrations of arsenic and organochlorine pesticides in the project site soil. The report also recommended soil sampling in the vicinity of the transformer to assess PCB concentrations in soil. The Phase I ESA recommendations were addressed in a following additional assessment as discussed below.

Preliminary Environmental Assessment Findings

The school district entered into an Environmental Oversight Agreement with the California Department of Toxic Substances Control (DTSC) on March 26, 2009 requiring a PEA for the site. The Environmental Oversight Agreement requested that additional research be conducted to address the issues of potential PCB contamination at the pole-mounted transformer; potential organochlorine pesticides and arsenic contamination across the site and in the area of the former holding pond; and petroleum contamination in the vicinity of the observed five-gallon bucket and irrigation well, which were observed on the site during the project's Phase I ESA. DTSC

also requested that the on-site irrigation well be sampled and tested for California Code of Regulation (CCR) Title 22 Drinking Water Standards.

The objective of the PEA was to determine whether a release or threatened release of hazardous materials exists at the site, or whether naturally occurring hazardous materials are present, which pose a threat to children's health, children's learning abilities, public health or the environment.

The PEA addressed the requests by DTSC and the recommendations in the Phase I ESA, and also contains a human health risk assessment of the organochlorine pesticides and arsenic concentrations detected in soil samples collected during preparation of the PEA. The PEA assessed the following:

- the presence and concentrations of arsenic and organochlorine pesticides in soil throughout the site;
- the presence and concentrations of PCBs in soil in the vicinity of the transformer;
- the presence and concentrations of total petroleum hydrocarbons (TPHs) in soil in the vicinity of the irrigation well; and
- the presence and concentrations of metals, organochlorine pesticides, volatile organic compounds, and other CCR Title 22 Drinking Water analytes in groundwater collected from the irrigation well.

According to the PEA, the project site is not listed in any regulatory databases and no properties listed within the American Society of Testing Materials-specified search radius appear to have impacted the site.

Organochlorine Pesticides. Based upon the default exposure evaluation and risk assessment parameters and calculations for a PEA, the cumulative residential incremental cancer risk estimates from residual organochlorine pesticides in soil for the soil ingestion, dermal contact, and dust inhalation pathways is 2.1×10^{-6} , which is slightly greater than the target incremental cancer risk of 1×10^{-6} typically used by the DTSC for school sites. Dieldrin and toxaphene accounted for most of the estimated incremental cancer risk based on samples collected from soil on the majority of the site.

The significance of the estimates of non-cancer hazard was evaluated by comparison to the target non-cancer hazard level of 1.0. The estimated total non-cancer hazard level for all pathways is 0.065, which is less than the target non-cancer hazard level of 1.0.

In accordance with the PEA guidance from DTSC, the health screening evaluation was based on residential exposure assumptions that overestimate the magnitude of exposure likely to occur under the conditions of a middle school land use. For the estimate of incremental cancer risk, the residential receptor was assumed to consist of a combined child from birth to six years of age, followed by 24 years as an adult for a total exposure duration of 30 years. This was an overestimate for middle school children who are expected to attend the school for two years. The assumed lower body weight and assumed higher incidental soil ingestion rates for a child less than six years of age result in a significantly overestimate of exposure and incremental cancer risk for middle school children. Additionally, the assumed residential exposure frequency is 350 days per year for children and 100 days per year for adults to estimate dermal contact exposure to soil. The actual dermal contact exposure frequency for children would be approximately 180 days per year (based on a traditional nine-month school year), and fewer days of direct exposure to soil are expected for middle school age students.

Groundskeepers at a school site would not likely have direct contact with soil at the site more than once per week, or 52 days per year. The assumed residential exposure duration is 30 years total divided between 24 years of adult exposure and six years of childhood exposure. Therefore, the exposure frequency and exposure duration assumptions based on residential land use significantly exceed the actual exposure conditions of 52 days per year for 25 years (default commercial exposure duration). Faculty and staff would have an exposure frequency less than the assumed residential exposure frequency of 350 days per year (assumed to actually be 100 days per year based on a nine-month school year). The use of default residential exposure assumptions overestimates the theoretical exposure and estimated risks for students, faculty, and staff.

The PEA concluded that the estimated residential incremental excess cancer risk was slightly greater than the target incremental cancer risk typically used by the DTSC for school sites. The combined conservative residential exposure assumptions used in the human health screening evaluation and the use of maximum concentrations leads to a significant overestimate of incremental risks for the proposed middle school, including students and workers. The PEA concluded that calculated incremental cancer risks specific to the middle school users would be significantly less than the target incremental risks.

Arsenic. Laboratory analytical results for arsenic in 13 surface soil samples ranged from 1.9 to 4.0 mg/kg. All results were below DTSC's working arsenic threshold value for schools of 12 mg/kg.

PCBs. Two surface soil samples were collected from within one foot of the pole-mounted transformer. Laboratory analytical results for PCBs indicated that none were detected; therefore, no further testing on subsurface samples was conducted.

TPH. Two surface soil samples collected in the area near the irrigation well were analyzed for total petroleum hydrocarbons ("TPH"). Laboratory analytical results for TPH showed

concentrations of up to 4.91 mg/kg TPH-diesel and 140 mg/kg TPH-motor oil. In accordance with recommendations from DTSC, TPH-diesel and TPH-motor oil were included in the human health screening evaluation. Results of the human health screening evaluation indicated that the soil and airborne dust non-cancer hazard indexes for TPH were below the target non-cancer hazard level of 1.0.

Hydraulic Fluid Container. A sealed five-gallon bucket containing hydraulic fluid was observed in the area of the irrigation well during the Phase I ESA investigation. No indications of a release or surface staining near the bucket were noted. The project's Phase I ESA report recommended that this bucket be removed prior to the purchase of the property. The removal of the bucket was not confirmed or documented in the PEA report.

On-Site Irrigation Water. Water beneath the site was sampled through the irrigation well. The samples were tested according to CCR Title 22 Drinking Water Standards. The analytes were tested at the request of DTSC as a preliminary water quality assessment pursuant to the possility of the school district keeping the well for irrigation purposes at the school. Arsenic was detected slightly above the maximum contaminant level (MCL) for drinking water. Secondary analytes that exceeded their respective MCL included total alkalinity, calcium, and sodium. The school district has since decided to not pursue use of the well for future irrigation purposes.

PEA Approval. On May 26, 2011, DTSC approved the PEA for the project site, including the following approval language:

"Based on a site inspection and review of the PEA Report, neither a release of hazardous material nor the presence of a naturally occurring hazardous material which would pose a threat to public health or the environment under unrestricted land use was indicated at the site. Therefore, DTSC concurs with the conclusion of the PEA Report that no further environmental investigation of the site is required and hereby approves the PEA Report as final. Pursuant to Ed. Code §17213.2(e), if a previously unidentified release or threatened release of a hazardous material or the presence of a naturally occurring hazardous material is discovered anytime during construction at the site, the district shall cease all construction activities at the site and notify DTSC. Additional assessment, investigation, or cleanup may be required."

With approval of the PEA, state school site safety considerations are considered to be addressed. However, this section further considers potential hazards and hazardous materials impacts of the proposed project to ensure all criteria have been considered and addressed.

Regulatory Setting

Federal

Toxic Substances Control Act. Congress enacted the Toxic Substances Control Act in 1976, which became effective January 1, 1977. The act authorizes the U.S. EPA to secure information on all new and existing chemical substances and to control any of these substances determined to cause an unreasonable risk to public health or the environment. The Toxic Substances Control Act also includes requirements for the storage, use, and disposal of PCB-containing materials.

Resource Conservation and Recovery Act. The Resource Conservation and Recovery Act enables the U.S. EPA to administer a regulatory program that extends from the manufacture of hazardous materials to their disposal, thus regulating the generation, transport, treatment, storage, and disposal of hazardous waste at all facilities and sites in the nation.

State

The DTSC works in conjunction with U.S. EPA to enforce and implement specific legislation and regulations pertaining to hazardous wastes. The California legislation, for which the DTSC has primary enforcement authority, includes the Hazardous Waste Control Act and the Hazardous Substance Account Act. Most state hazardous waste regulations are contained in Title 22 of the California Code of Regulations. The DTSC generally acts as the lead agency for soil and groundwater cleanup projects, and establishes cleanup and action levels for subsurface contamination that are equal to, or more restrictive than, federal levels.

The Hazardous Materials Release Response Plans and Inventory Act requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered to be hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

Local Plans and Regulations

Monterey County Department of Environmental Health – Local Regulatory Agency. The Monterey County Department of Environmental Health is designated by the California Environmental Protection Agency as a Certified Unified Program Agency. The California Environmental Protection Agency is responsible for promulgating a range of state and federal regulations relating to environmental protection and hazardous materials. As a Certified Unified Program Agency, the Monterey County Department of Environmental Health is responsible, at

the local level, for the administrative requirements, permits, inspections, and enforcement activities of six state level environmental and emergency response programs, including those that relate specifically to public safety and hazardous materials. The Monterey County Department of Environmental Health administers several programs designed to implement these regulations. The programs include the following:

- Hazardous Material Business Plan and Inventory Program;
- Hazardous Waste Generator Program;
- Hazardous Waste Onsite Treatment: Tiered Permitting Program;
- Underground Storage Tank Program;
- California Accidental Release Prevention Program; and
- Aboveground Petroleum Storage Tank Program.

As a fundamental component of several of these programs, facilities which generate any quantity of hazardous waste or which handle hazardous materials in amounts greater than 55 gallons for liquids, 500 pounds for solids, and/or 200 cubic feet for compressed gases must prepare a Business Response Plan and Inventory. Business Response Plans must include specific information on hazardous materials handled (inventory), emergency contacts, notification procedures, evacuation plans, training procedures and a site map. Facilities which handle extremely hazardous (regulated materials) may also be required to prepare a Risk Management Plan. A Risk Management Plan must addresses several issues including types of substances handled, accidental release and chemical-specific prevention, accident history, emergency response program, etc.

Thresholds or Standards of Significance

CEQA Guidelines appendix G indicates that a project may have a significant effect on the environment if it would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

- be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;
- for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

State School Site Safety Considerations

New school sites must comply with the school site selection standards in Title 5, Section 14010 of the California Code of Regulations, Chapter 13 of Division 1, School Facilities Construction, adopted by the California Department of Education pursuant to Subdivision (b) of Section 17251 of the Education Code and SB 50 Regulations, sections 1859.74.1 and 1859.75. The search for potential school sites was based on criteria established in conformance with these regulations and with School Site Analysis and Development, published by the State Department of Education. Following is a summary of those criteria:

- The project site must be at least 100 feet from the edge of a power line easement for a 50-133 kilovolts ("kV") high-voltage power transmission line, 150 feet from the edge of a power line easement for a 220-230 kV high-voltage power transmission line, and at least 350 feet from the edge of a power line easement for a 500-550 kV high-voltage power transmission line (CCR Section 14010 (c).);
- The project site must be a sufficient distance from a railroad track easement, as ascertained by an analysis of the cargo, speed, grade, curves, and/or type of track to determine that the tracks pose no risk of personal injury or property damage (CCR section 14010 (d).). School sites more than 1,500 feet from a railroad are considered beyond the area of concern;
- The project site must not be adjacent to a road or freeway that will pose noise or traffic safety problems that will adversely affect the educational program (CCR section 14010 (e).);

- The project site must not be located within an area of flood or dam failure flood inundation, or if it is, the cost of mitigating this is reasonable (CCR section 14010 (g).);
- The project site must not be located near an above-ground water or fuel storage tank that can pose a safety hazard (CCR section 14010 (h).); and
- The site must be located at least 500 feet from the edge of the closest traffic lane of a freeway or other busy traffic corridor (SB 352) (PRC 21151.8).

The preceding provisions of the CCR may be waived by the Superintendent of Public Instruction if the school district can demonstrate that "mitigation of specific circumstances overrides a standard without compromising a safe and supportive school environment" (CCR section 14010 (u).).

Additional considerations to protect school sites from potential hazards include the following:

- The project site must not have served as a hazardous disposal waste site, unless the school district determines that the waste has been removed. The project site must not be identified as a hazardous substance release site by the State Department of Health Services (Ed. Code section 17213 (a)(1).);
- The project site must not contain any pipelines carrying hazardous waste. Pipelines carrying natural gas to supply the school site or neighborhood are permitted (Ed. Code section 17213 (a)(3).); and
- The project site must not be within one-quarter mile of a facility that "might reasonably be anticipated to emit hazardous air emissions or to handle hazardous or extremely hazardous materials, substances or waste" (Ed. Code section 17213 (b); refer also to CEQA Guidelines section 15186).

If the project site is within two miles of an airport runway, the school district must notify the State Department of Education, which must notify the State Department of Transportation, and a favorable report must be issued by the State Department of Transportation (Ed. Code section 17215).

Public Resources Code Section 21151.8 sets forth similar requirements for CEQA review of hazards (see Section 1.0 Introduction).

Analysis, Impacts and Mitigation

Environmental Topics Eliminated from Further Consideration

Emit Hazardous Emissions or Handle Hazardous Materials or Substances within One-Quarter Mile of an Existing or Proposed School. The closest schools to the site are Everett Alvarez High School and John E. Steinbeck Elementary School to the southwest and New Republic Elementary School to the west. The schools are approximately one half mile to one mile from the project site. In addition, the project site is not located within one quarter mile of a stationary hazardous emissions generator. Therefore, the project site would not be exposed to or emit hazardous emissions, or result in handling of hazardous materials or substances within onequarter mile of an existing or proposed school.

Be Located on a Site that is Included on a List of Hazardous Materials Sites. The Phase I ESA documented that the project site is not located on any list of hazardous materials sites compiled pursuant to Government Code section 65962.5. In addition, no properties within the American Society of Testing Materials-specified search distances were listed in the regulatory databases (Kleinfelder 2009).

Be Located Within an Airport Land Use Plan or Two Miles of a Public-Use Airport or Private Airstrip. The proposed project site is located about three miles from the Salinas Municipal Airport and therefore, is not located within an airport land use plan and is not within two miles of a public-use airport or a private airstrip.

Impair Implementation of or Physically Interfere with an Adopted Emergency Response or Evacuation Plan. Development of the site with a middle school is consistent with the City's General Plan land use designation and densities and would not be located within an adopted emergency response or evacuation route. Therefore, the project would not interfere with an adopted emergency plan.

Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildland Fires. The project site is surrounded by farmland and is not located within a wildland fire hazard area.

State School Site Safety Considerations. The project site is not located within the range of probable hazards from heavily traveled highways or streets, railroads, airports, hazardous materials pipelines, or storage tanks. Other state school site safety considerations are incorporated into the analysis of potential impacts below.

IMPACT: PROJECT CONSTRUCTION WOULD INVOLVE THE TRANSPORT, USE, AND DISPOSAL OF HAZARDOUS MATERIALS (LESS THAN SIGNIFICANT)

Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. All construction activities would be subject to the National Pollutant Discharge Elimination System ("NPDES") permit process that requires the preparation of a storm water pollution prevention plan ("SWPPP"), which would be reviewed and approved by the RWQCB.

Enforcement of hazardous material regulations and rapid response by local agencies would reduce the project's hazardous materials transportation, use, and disposal impacts and ensure that the risk of potential hazard to the public and the environment would be less than significant.

In conclusion, project construction activities may involve the use, transport, and disposal of hazardous materials; however, required compliance with applicable federal, state, and local statutes and regulations would ensure the risk of hazard to the public and/or the environment would be less than significant.

IMPACT: THE PROJECT MAY CREATE A HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT (LESS THAN SIGNIFICANT WITH MITIGATION)

Because hazardous agricultural materials may have been used or stored on the project site since 1956, the potential exists that project site soils and irrigation well water have been locally contaminated by spills or leakage of these materials. Exposure of future middle school students and employees to soils or irrigation well water contamination is a potential health hazard and potential environmental impact. The Phase I ESA and PEA did not find any significant impact to shallow soil due to arsenic, organochloride pesticides, PCBs, or total petroleum hydrocarbons on the property.

The Hazardous Materials Management Service of the Monterey County Environmental Health Bureau requires that prior to any conversion of agricultural land to a school site, a property must be sampled and tested for Contaminants of Potential Concern according to the protocols developed by the DTSC. Contaminants of Potential Concern can include organochlorine pesticides such as DDT, as well as arsenic and other heavy metals. The PEA prepared for the proposed project addresses the requirements of the Monterey County Environmental Health Bureau. Arsenic was reported below the DTSC's working threshold value for schools. PCBs were not detected in the soil samples collected near the onsite transformer. A human health screening evaluation of the reported detections of TPH in soil indicated that there does not appear to be a human health risk associated with TPH. The cumulative residential incremental cancer risk estimates from residual organochlorine pesticides in soil for the soil ingestion, dermal contact, and dust inhalation pathways were slightly greater than the target incremental cancer risk typically used by the DTSC for school sites. However, for this project, the calculated incremental cancer risks specific to the middle school users from residual organochlorine pesticides would be significantly less than the target incremental risks, because the human health screening evaluation was conducted using conservative residential exposure assumptions that overestimated the magnitude of exposure. Based on findings in the PEA, impacts associated with potential exposure to residual contamination in on-site soils would be less than significant.

The water sample collected from the irrigation well reported arsenic above the MCL for drinking water. In addition, secondary analytes total alkalinity, calcium, and sodium also exceeded their respective MCLs. It is unlikely that the proposed middle school students and employees would be exposed to the irrigation well water because the well would be used by the adjacent property owner (APN 153-091-007) under a 10-year easement upon sale of the proposed middle school property to the school district, and not used by the middle school. Furthermore, the irrigation well and associated above-ground piping and de-sander would be fenced off and inaccessible to middle school students and school workers. Potable and non-potable water would be provided to the proposed middle school by Alco Water Service, a private water purveyor. Impacts associated with potential exposure to or ingestion of irrigation well water to middle school users would, therefore, be less than significant.

In conclusion, the results of the project's Phase I ESA and PEA do not indicate that the potential for the project to create a significant hazard to the public or the environment through reasonably foreseeable accident conditions involving the release of hazardous materials into the environment through residual contamination in soil is less than significant. The potential release of hazardous materials into the environment from the irrigation well water is also less than significant since the irrigation well will be used by the adjacent property owner and fenced off from the middle school students and workers. As the project's PEA was approved by the Department of Toxic Substances Control (May 2011), the proposed project is considered to be in compliance with state school site safety considerations. However, although known impacts are considered to be less than significant based on the project's Phase I ESA and PEA, unidentified hazardous materials may exist and the following mitigation measure will apply.

Mitigation Measure

HAZ-1. Pursuant to Ed. Code §17213.2(e), if a previously unidentified release or threatened release of a hazardous material or the presence of a naturally occurring hazardous material is discovered anytime during construction at the site, the Salinas Union High School District will cease all construction activities at the site and notify the Department of Toxic Substances Control. Additional assessment, investigation or cleanup may be required, based on direction provided by the Department of Toxic Substances Control.

3.8 HYDROLOGY AND WATER QUALITY

This section summarizes information on hydrology, including flooding, groundwater, and water quality within the study area. Information in this section is taken primarily from the *City of Salinas General Plan Final Environmental Impact Report* (2002), *Final Supplement for the City of Salinas General Plan Final Program EIR* (2007), and the *Preliminary Stormwater Control Plan for Salinas Union High School District New Middle School* prepared for the proposed project by Wood Rogers (November 2015). A copy of this report can be found in Appendix H.

Response letters to the NOP addressing hydrology and water quality issues were submitted by the City of Salinas and the Northern Salinas Valley Mosquito Abatement District. The City of Salinas stated the project would be subject to City fees regarding storm drains and also requested the EIR to analyze the proposed project's potential impacts of releasing of storm water from the site causing flooding of local croplands and leading to erosion/silt into the City's storm drain system. The Northern Salinas Valley Mosquito Abatement District requested to be consulted on the design of all water features on the site, which does not require analysis or other response in the EIR; however, the comment and request have been noted by the school district.

Environmental Setting

Regional Hydrogeology

California's coastal valleys are formed by structural troughs that are typically filled with thousands of feet of marine and continental sediments. Fresh water is contained in aquifers that consist of continental deposits of sand and gravel that might be interbedded with confining units of fine-grained material, such as silt and clay. The aquifers and confining units compose an aquifer system. In most of these valleys, the natural groundwater flow follows the axis of the trough. Recharge to these aquifers is mostly by precipitation that runs off from the surrounding mountains and infiltrates as leakage though streambeds.

The Salinas Valley lies within the southern Coast Ranges between the San Joaquin Valley and the Pacific Ocean. The valley is drained by the Salinas River and extends approximately 150 miles from the headwaters to the mouth of the river at Monterey Bay. The total drainage area of the basin is about 5,000 square miles. The Salinas Valley lies almost entirely in a northwest-trending structural trough filled principally by unconsolidated continental deposits. The valley is bounded by the San Andreas Fault on the northeast and by a series of aligned and interconnected faults on the southwest. The mountains that bound the valley were formed by uplift and deformation caused by crustal shortening and are underlain by consolidated marine sediments, intrusive igneous rocks, and metamorphic rocks (United States Geological Survey 1995).

The Salinas Valley aquifer system is divisible into upper and lower groundwater basins, with the lower basin extending from San Ardo to Monterey Bay. The lower basin can be further divided into the East Side subarea (to the east of Gonzales and Salinas), and the Pressure subarea. The project site is located within the East Side subarea. The East Side subarea geology is characterized by discontinuity of sand and gravel beds, both laterally and vertically (Kennedy/Jenks Consultants 2004).

Groundwater

Groundwater in the lower basin is mostly under water-table conditions, meaning it is not confined. Groundwater movement in most of the valley is in the direction of surface water flow and follows the gradient of the land surface seaward. Nearly all the discharge in the lower basin is by withdrawals from wells. Principal recharge is from percolation of precipitation, with additional recharge from percolation of river water near the Salinas River (Monterey County Water Resources Agency 1997).

Throughout the lower basin agricultural and municipal withdrawals caused a general decline in groundwater levels until 1956, when the flow of the Salinas River became perennial with the regulation of the Nacimiento River. Nonetheless, water levels in lower basin wells have remained below sea level since the late 1940s and have resulted in saltwater encroachment in the areas nearest to Monterey Bay (United States Geological Survey 1995).

The East Side subarea appears to have been one of the natural sources of recharge to the adjacent Pressure subarea and groundwater levels historically could have been higher than those in the Pressure subarea. Pumping overdraft in the East Side subarea has caused an apparent reversal of the groundwater flow from the Pressure subarea into the East Side subarea (Kennedy/Jenks Consultants 2004, page 20 and California Department of Water Resources February 27, 2004).

Water for urban uses in the City of Salinas and surrounding area is pumped from wells owned and operated by California Water Service and Alco Water Service, both private water companies/purveyors. Water is also pumped for agricultural irrigation and for rural residential uses. No imported water sources are available and water supplies are limited to the watershed. The high dependency on groundwater and the growth in water demand have put a strain on groundwater resources of the Salinas Valley Groundwater Basin. Seawater intrusion and nitrate contamination of the groundwater supply have contributed to the decline in water quality in the basin.

The water provider for the area of the project site is Alco Water Service. According to their 2010 Urban Water Management Plan, they have sufficient access to water and adequate supply to serve future development in their service area through the year 2027. However, the provision of water by Alco Water Service and other providers will likely contribute to the ongoing overdraft condition in the Salinas Valley Groundwater Basin, which could exacerbate seawater intrusion and nitrate contamination. The SEIR concludes that it is therefore uncertain whether an adequate supply of good quality water would be available in the long term. The SEIR concludes that even with the implementation of mitigation measures, the impacts related to groundwater pumping would remain significant and unavoidable (SEIR, page 5.3-32).

The SEIR also addresses the issue of increased groundwater pumping and the availability of an adequate supply of good quality groundwater. Currently, the Salinas Valley Groundwater Basin is not adjudicated, and there are no restrictions on the amount of groundwater that can be pulled from any source. Therefore, the water purveyors have no limit on their legal rights to withdraw water from their groundwater well sources.

For discussion on water infrastructure to serve the proposed project, see Section 3-11, Effects Found Not to be Significant.

Surface Drainage

The topography of the project site and areas of off-site improvements are generally flat. There are no structures or paved surfaces currently on the project site. There are no natural water features on the site. An irrigation ditch crosses the northern portion of site, flowing to Natividad Creek. This irrigation ditch is delineated on the USFWS National Wetlands Inventory map as "riverine," indicating the ditch is related to the creek. The ditch ends at the junction of a pump to an underground irrigation system. Both on-site and off-site areas drain into the ditch.

The project site is located between Gabilan Creek to the east and Nativdad Creek to the west. Gabilan Creek runs north-south approximately 0.7 miles east of the project site and Nativdad Creek runs north-south approximately 0.25 miles west of the project site. Portions of Natividad Creek have been converted to agricultural ditches within the area, but portions of the creek retain a natural flow. There are irrigation and drainage ditches that flow into Gabilan Creek and Natividad Creek in the vicinity of the project site. The creeks provide drainage for the Gabilan Mountains and are a tributary to Carr Lake, located approximately one and a half miles southwest of the site. Carr Lake serves as a natural detention facility and provides flood control during large rainfall events.

Preliminary Storm Water Control Plan

A preliminary storm water control plan has been prepared for the proposed project (Wood Rodgers 2015). The report identifies that runoff from the site and surrounding area is conveyed to an existing agricultural ditch located on the eastern side of the project site. The report identifies that this ditch would need to be diverted around the site, or to have the flows piped underneath the site to maintain the existing drainage pattern so that off-site flows are not discharged into proposed retention/infiltration basins proposed on the site as project components. At locations where off-site runoff reaches the boundary of the project site as sheet flow, the runoff will be intercepted, diverted, and distributed using a spreading system to minimize impacts on existing drainage patterns.

In the existing site condition, runoff is conveyed from the site to the drainage ditch as sheet flow. In the proposed site conditions, off-site flows may continue to be conveyed to the drainage ditch, but on-site flows would be conveyed to infiltration basins proposed to be located on the site. These basins would be used to prevent the release of storm water from the site which may otherwise cause flooding of surrounding croplands and impact Carr Lake downstream and/or lead to erosion/silt build up in the City's storm drainage system.

Regulatory Setting

Federal Clean Water Act and State Porter-Cologne Water Quality Control Act

Water quality objectives for all waters in the State of California are established under applicable provisions of Section 303 of the Federal Clean Water Act and the state Porter-Cologne Water Quality Control Act. These laws seek to control the addition of source and non-source pollutants to surface waters and to protect the integrity of wetlands. Section 303 of the Clean Water Act requires states to adopt water quality standards for all surface waters. Section 304(a) requires the U.S. EPA to publish water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in the water.

The Porter-Cologne Water Quality Control Act of 1969 established the State Water Resources Control Board, which is the state agency with primary responsibility for protecting water quality,

and the nine Regional Water Quality Control Boards. The State Water Resources Control Board and the nine RWQCBs are responsible for assuring implementation and compliance with the provisions of the Clean Water Act and the Porter-Cologne Water Quality Control Act. The City of Salinas falls within the Central Coast RWQCB, which sets water quality standards, issues waste discharge requirements, determines compliance with those requirements, and takes enforcement action. The Central Coast RWQCB developed a water quality control plan for the central coast basin that protects water quality through the designation of beneficial uses, establishment of water quality objectives, and administration of the NPDES permit program for storm water and construction site runoff.

National Pollutant Discharge Elimination System

The U.S. EPA has published regulations establishing storm water permit application requirements under the Clean Water Act. The NPDES program controls and reduces pollutants to water bodies from point and non-point discharges. Projects that disturb more than one acre of land during construction are required to file a notice of intent to be covered under the State NPDES General Construction Permit for discharges of storm water associated with construction activities. The NPDES construction permit requires implementing both construction and post construction phase storm water pollution best management practices. The State NPDES General Construction Permit requires development and implementation of a Storm Water Pollution Prevention Plan that uses storm water "Best Management Practices" ("BMPs") to control runoff, erosion, and sedimentation from the site both during and after construction. The SWPPP has two major objectives: (1) to help identify the sources of sediments and other pollutants that affect the quality of storm water discharges; and (2) to describe and ensure the implementation of practices to reduce sediment and other pollutants in storm water discharges.

Water Conservation Act of 2009

The State of California Water Conservation Act of 2009 requires the state and its municipal water purveyors to reduce water usage per capita by 10 percent by the year 2015, and to achieve a 20 percent reduction in urban per capita water usage by 2020. New water conserving provisions in CalGreen are intended to achieve this goal in new construction.

Sustainable Groundwater Act

The Sustainable Groundwater Act of 2014 provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention if necessary to protect the resource. The act requires the formation of local groundwater sustainability agencies that must assess conditions in their local water basins and adopt locally-based management plans. The act provides a 20-year timeframe for achievement of long-term groundwater

sustainability. The Department of Water Resources is currently taking the initial steps in developing implementation guidance. Local groundwater sustainability agencies must be established by June 2017. The Department of Water Resources has ranked the Salinas Valley Eastside basin as a high priority basin under the act, noting that overdraft conditions are high in the basin, with high total dissolved solid counts and nitrates exceeding drinking water standards in portions of the basin (California Department of Water Resources 2016).

Standards of Significance

CEQA Guidelines appendix G indicates that a project may have a significant effect on the environment if it would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., would the production rate of preexisting nearby wells drop to a level which would not support existing land uses or planned uses for which permits have been granted;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface run-off in a manner which would result in flooding on- or off-site;
- Create or contribute run-off water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted run-off;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Cause inundation by seiche, tsunami, or mudflow.

Analysis, Impacts and Mitigation

Environmental Topics Eliminated from Further Consideration

100-Year Flood Zone. According to the General Plan EIR Figure 5.6-2, Flood Prone Areas, the project site is not located within a flood prone area. Future development of the site would not place housing or structures within the 100-year flood hazard area. Therefore, future development of the proposed project would not place structures within a flood hazard area and this threshold is not further addressed in this section.

Seiche, Tsunami, Mudflow. Due to the project site's location and surrounding topography, the project site would not be susceptible to inundation by seiche, tsunami, or mudflow. Therefore, this threshold is not further addressed in this section.

IMPACT: THE PROJECT COULD RESULT IN A VIOLATION OF WATER QUALITY STANDARDS AND WASTE DISCHARGE REQUIREMENTS (LESS THAN SIGNIFICANT WITH MITIGATION)

Development of the project site would result in an increase in impervious surfaces. Pollutants associated with urban uses, such as oil, grease, pesticides, fertilizers, and detergents would be used more widely over time. In addition, grading and construction activity could cause erosion, increasing the sediment load of runoff. Future development of the site for the proposed project could result in storm water runoff that could make its way into area drainages such as Natividad Creek and Carr Lake, thereby impacting water quality.

Water quality impacts due to buildout of the General Plan were analyzed in the General Plan EIR. The General Plan EIR includes mitigation measures that reduce the potential impact. Furthermore, the preliminary storm water control plan prepared for the project includes measures to reduce potential impacts to water quality from construction and operation of the proposed project on the site.

Examples of these mitigation measures include the incorporation of BMPs pursuant to the NPDES permit and requiring the City to coordinate in the development and implementation of a public education program to inform the public of the harm caused by pollutants and litter to drainage systems, creeks, rivers and ultimately the ocean. The General Plan EIR concludes that with the implementation of mitigation measures, the impact of buildout consistent with the General Plan on water quality standards would be less than significant impact to water quality. The proposed project is consistent with the General Plan land use designations and densities for the project site.

Applying the measures identified in the project's storm water control plan, as indicated in Mitigation Measure HYD-1 below, would ensure that potential impacts associated with a violation of water quality standards or waste discharge requirements are reduced to a less-than-significant level.

Mitigation Measure

HYD-1. All recommendations from the project's Preliminary Storm Water Control Plan prepared by Wood Rodgers, Inc. (November 2015) shall be incorporated into a final storm water control plan for the project (project site and off-site improvements) prior to commencement of grading or building.

Implementation of Mitigation Measure HYD-1 would reduce potential impacts to a less-thansignificant level and no additional mitigation is required. For discussion of potential cumulative impacts of the project on water quality, see Section 4.0, Cumulative Impacts.

IMPACT: THE PROJECT WILL CONTRIBUTE TO THE DEPLETION OF GROUNDWATER SUPPLIES (LESS THAN SIGNIFICANT)

The proposed new middle school would be approximately 75,750 square feet. Based on a standard water use factor of 0.00007 acre-feet for each square foot of the school's structural development (based on the Monterey Peninsula Water Management District water use factor, as Alco Water Service does not have water demand factors), total water demand for the proposed project would be 75,750 square feet multiplied by 0.00007 acre-feet per square foot, for a total estimated annual water demand of 5.3 acre-feet per year. The project site would be supplied groundwater by Alco Water Service. According to Alco Water Service's 2010 Urban Water Management Plan, the company will have sufficient access to water and adequate supply to serve future development in its service area through the year 2027.

Furthermore, the proposed conversion of the site from agricultural use to school use would represent an ultimate reduced amount of water use for the site. Based on the Pajaro Valley Water Management Agency's *Crop Water Use Study 1994-1997* (1998), agricultural land planted with strawberries, or similar crops, has an approximate water usage of 2.8 acre-feet per year per acre. Therefore, it is estimated that the 18-acre project site has an annual water usage of approximately 50.5 acre-feet per year. Therefore, compared to the proposed project's estimated water usage of 5.3 acre-feet per year, the conversion of the site from agricultural use would represent a reduction in overall water demand from the Salinas Valley Groundwater Basin.

However, although the proposed project is consistent with General Plan land use designations and densities, based on the SEIR's conclusion of uncertainty of adequate supply of groundwater in the long term, the proposed project's increase in overall groundwater supply demand would be a significant and unavoidable impact.

Although the project-level impact by the project on groundwater sources would not be significant, the following mitigation measure, reflecting the requirement of the Water Conservation Act of 2009 to achieve a 20 percent reduction in urban per capita water usage by 2020, would apply, further reducing potential impacts.

Mitigation Measure

HYD-2. Project plans shall provide evidence of a 20 percent reduced water demand for the project site compared to a business as usual water demand for a middle school of similar size. This may be achieved through a combination of measures to increase water efficiency on the site, such as installation of low-flow fixtures, use of drought-tolerant landscaping, etc., as long as the goal of a 20 percent reduction is demonstrated on project plans for the project.

Implementation of Mitigation Measure HYD-2 would reduce water use associated with the proposed project. For discussion of potential cumulative impacts of the project on groundwater sources, see Section 4, Cumulative Impacts.

IMPACT: THE PROJECT WILL ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE WHICH MAY RESULT IN INCREASED STORMWATER RUNOFF THAT COULD CAUSE EROSION, FLOODING, EXCEED THE CAPACITY OF STORMWATER FACILITIES, OR INTERFERE WITH GROUNDWATER RECHARGE (LESS THAN SIGNIFICANT)

New development associated with buildout of the General Plan will result in greater areas of impervious surfaces, which could result in an increase in the amount of urban pollutants in the surface creeks and drainage channels as well as overall increase in the volume of runoff and may, therefore, result in significant impacts. The General Plan EIR analyzed the impacts from General Plan buildout on the overall increase of volume of urban runoff and surface water quality from increased urban runoff. The General Plan EIR concluded that there will be potentially significant impacts, but that compliance with the policies and actions in conjunction with mitigation measures would reduce these impacts to a less-than-significant level.

However, after the General Plan EIR was certified the Monterey County Local Agency Formation Commission received correspondence from the Monterey County Water Resources Agency indicating that storm water conveyance facilities downstream of the Future Growth Area are at, or exceed, capacity. Additionally, in 2005, the City of Salinas was issued a new fiveyear NPDES permit by the Central Coast RWQCB, which replaced the 1999 permit referenced in the 2002 General Plan EIR. Therefore, the issue of storm water conveyance facilities and capacity-related issues and water quality impacts were evaluated again in the SEIR. According to the SEIR, future development consistent with general plan buildout, including development within the Future Growth Area, could result in the modification of surface hydrology that would decrease the efficiency of drainage conveyance systems, increase runoff volumes, reduce infiltration through increased impervious surfaces, increase peak runoff rates, and increase the concentration of pollutants that could impact water quality (SEIR, page 5.4-4). The SEIR included a hydrologic analysis that looked at methods to mitigate storm water peak and total flows to predevelopment conditions, while maintaining water quality standards. The analysis concluded that the type of facilities needed are dual (detention/retention) basin that would detain storm water runoff so the post-development downstream flow rate is not increased over that which existed prior to development and would retain on-site the additional volume of storm water that results from the associated increased impervious surface. The use of these systems would reduce potential impacts from anticipated buildout to a less-than-significant level.

The proposed project is consistent with General Plan land use designations and densities for the project site. However, development of the project site would result in an increase in impervious surfaces and contribute to the impacts discussed in the General Plan EIR and General Plan SEIR.

A Preliminary Storm Water Control Plan has been prepared for the proposed project (Wood Rodgers, 2015). The report identifies that runoff from the site and surrounding area is conveyed to an existing agricultural ditch located on the eastern side of the project site. The report identifies that this ditch would need to be diverted around the site, or to have the flows piped underneath the site to maintain the existing drainage pattern so that off-site flows are not discharged into proposed retention/infiltration basins proposed on the site as project components. At locations where off-site runoff reaches the boundary of the project site as sheet flow, the runoff will be intercepted, diverted, and distributed using a spreading system to minimize impacts on existing drainage patterns.

In the existing site condition, runoff is conveyed from the site to the drainage ditch as sheet flow. In the proposed site conditions, off-site flows may continue to be conveyed to the drainage ditch, but on-site flows would be conveyed to infiltration basins proposed to be located on the site. These basins would be used to prevent the release of storm water from the site which may otherwise cause flooding of surrounding croplands and impact Carr Lake downstream and/or lead to erosion/silt build up in the City's storm drainage system.

An infiltration BMP measure has been applied to the proposed project in the project's storm water control plan to satisfy these requirements. Site runoff will be conveyed to the proposed infiltration basins identified in the project's storm water control plan. The proposed retention basins' capacity will be sized to prevent discharge increases in any event up to at least a 100-year storm, exceeding minimum design requirements.

Therefore, with incorporation of the project's storm water control plan, run-off from the site would be retained on-site and would not contribute to the local area's or downstream flood potential or cause erosion/silt build up in the City's storm drainage system. The existing drainage pattern of the area would be accommodated on the site by either design measures to divert flows from the area into the existing agricultural ditch on the site, or by piping the flows underneath the site.

Implementation of Mitigation Measure HYD-1, requiring implementation of all recommendations from the project's storm water control plan shall be incorporated into a final storm water control plan for the project and would reduce potential impacts to a less-than-significant level and no additional mitigation is required.

IMPACT: THE PROJECT WOULD EXPOSE PEOPLE OR STRUCTURES TO FLOODING RISKS AS A RESULT OF THE FAILURE OF A LEVEE OR DAM (LESS THAN SIGNFICANT)

The City of Salinas and its surrounding area have the potential to experience inundation due to the failure of the Nacimiento and San Antonio dams. According to the City's *Multihazards Emergency Plan*, in the event that one of these dams was to fail during a normal wet river flow, approximately two-thirds of Salinas would be flooded within 22 hours after failure. Salinas is required by Section 8589.5 of the California Government Code to have emergency procedures for the evacuation and control of populated areas within the limits of inundation below dams. The dams are inspected regularly and potential failure of the dams is considered unlikely. The General Plan EIR concludes that future development associated with buildout of the General Plan is not likely to expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of the dams. The rot a significant risk of loss, injury, or death involving flooding as a result of the failure of the dams. The potential impact is considered to be less than significant and no mitigation is required.

3.9 NOISE

The information contained within this section is based on data from the *Salinas Union Middle School Project Environment Noise Assessment* prepared Illingworth & Rodkin (October 2015). A copy of the noise assessment can be found in Appendix I. Comment letters on the NOP addressed the need for a noise analysis to be conducted and the identification of adequate mitigation measures to address potential noise impacts of the middle school on future adjacent residential uses.

Environmental Setting

Measurements of Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. Noise is generated by many mobile sources (e.g., automobiles, trucks, and airplanes) and stationary sources (e.g., construction sites, machinery, and industrial operations).

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Most of the sounds which we hear in our normal environment do not consist of a single frequency, but rather a broad range of frequencies. As humans do not have perfect hearing, environmental sound measuring instruments have an electrical filter built in so that the instrument's detector replicates human hearing. This filter is called the "A-weighting" network and filters out low and very high frequencies. The most common method of characterizing sound in California is the A weighted sound level or dBA. Although the A-weighted noise level may adequately indicate the level of noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a mixture of noise from distant sources that create a relatively steady background noise from which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_1 , L_{10} , L_{50} and L_{90} are commonly used.

The three most commonly used descriptors are energy-equivalent noise level ("Leq"), day-night average noise level ("DNL" or "Ldn"), and community equivalent noise level ("CNEL"). The Leq, is a measure of the average energy content (intensity) of noise over any given period. The DNL is the 24-hour average of the noise intensity, with a 10-dBA "penalty" added for nighttime noise (10 PM to 7 AM.) to account for the greater sensitivity to noise during this period. CNEL, is similar to DNL but adds an additional 5-dBA "penalty" for night-time noise. Common noise level descriptors are summarized below in Table 12, Definitions of Acoustical Terms.

Existing Noise Environment

The project site is located about 1,100 feet north of East Boronda Road in an area surrounded by agricultural-related land uses. The primary noise sources at the site are assumed to be agricultural operations and distant traffic noise from vehicles on East Boronda Road. The nearest residences are located south of East Boronda Road, about 1,150 feet from the site.

Term	Definition
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A- weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period.
Lmax, Lmin	The maximum and minimum A-weighted noise level during the measurement period.
$L_{01}, L_{10}, L_{50}, L_{90}$	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, Ldn or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.

Table 12Definitions of Acoustical Terms

Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Illingworth & Rodkin 2015.

Existing and future traffic noise levels generated by vehicles traveling along East Boronda Road were modeled using the Federal Highway Administration's Traffic Noise Model, version 2.5. Based on a review of the traffic volumes provided by Kimley-Horn's traffic impact analysis, the peak hour traffic volume along the segment of East Boronda Road nearest the site is 1,314 vehicles under existing conditions and 3,214 vehicles under 2030 cumulative with project conditions. Traffic noise levels were conservatively calculated assuming a truck percentage of 10 percent for this primarily agricultural area and a vehicle speed of 50 mph (5 mph over the 45 mph speed limit). Although truck percentages would likely decrease if the area is developed with residential and commercial land uses under the Specific Plan, this percentage was used to represent a credible worst-case scenario for both existing and future conditions. Typically, in suburban and agricultural environments where traffic is the dominant noise source, the CNEL noise level can be approximated by the peak hour Leq.

At a distance of 50 feet from the center of East Boronda Road, traffic noise levels were calculated to be 71 dBA Leq/CNEL under existing conditions. The noise model is not considered accurate at distances greater than 500 feet. As a result, traffic noise levels at the project site were calculated from the modeling results using the standard drop off rate of about 4.5 dB per doubling of distance for traffic noise sources over relatively soft ground. At a distance of 1,100 feet from the roadway and not taking into account any acoustical shielding provided by intervening terrain or structures, traffic noise levels at the site are calculated to be 51 dBA Leq/CNEL under existing conditions.
Standards of Significance

CEQA Guidelines appendix G indicates that a project may have a significant effect on the environment if it would:

- Expose people to or generate noise levels in excess of established in the local general plan, noise ordinance, or applicable standards of other agencies.
- Expose people to or generate excessive groundborne vibration or groundborne noise levels.
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- Result in a substantial temporary or periodic increase in the ambient noise levels in the project vicinity above levels existing without the project.
- Where projects within an area covered by an airport land use plan or within two miles of a
 public airport or public use airport when such an airport land use plan has not been
 adopted, or within the vicinity of a private airstrip, expose people residing or working in
 the project area to excessive aircraft noise levels.
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.
- Noise and Land Use Compatibility. School uses are considered "normally acceptable" where exterior noise exposures are 60 dBA CNEL or less and interior exposures are 45 dBA CNEL or less.
- Vibration Exposure. The California Department of Transportation uses a vibration limit of 0.3 in/sec peak particle velocity ("PPV") for buildings that are found to be structurally sound and designed to modern engineering standards. A significant impact would be identified if the construction of the project would expose persons to vibration levels exceeding 0.3 in/sec PPV because of the potential to result in cosmetic damage to buildings of normal conventional construction.
- Permanent Noise Levels and Increases from Project Traffic and Operations. School operational noise sources (excluding sporting events) are limited to 60 dBA CNEL at residential districts. Additionally, the impact would be considered significant if the project would increase noise levels at noise sensitive receptors by 3 dBA CNEL or Leq or greater where exterior noise levels would exceed the normally acceptable noise level standard. Where noise levels would remain at or below the normally acceptable noise level standard with the project, noise level increases of 5 dBA CNEL or Leq or greater would be considered significant.

• **Temporary Noise Increase from Construction Noise.** Construction noise impacts would be considered significant if hourly average noise levels received at noise sensitive residential land uses are 60 dBA Leq and at least 5 dBA Leq above the ambient noise environment when the duration of the noise-generating activities last for more than one year.

Analysis, Impacts and Mitigation

Environmental Topics Eliminated from Further Consideration

Airport Vicinity. The project site is not located within two miles of the Salinas Municipal Airport and is not located within any airport land use plan or in the vicinity of a private airstrip. Therefore, noise associated with aircraft is not discussed further in this analysis.

IMPACT: THE PROJECT WOULD RESULT IN A LESS THAN SIGNIFICANT NOISE AND LAND USE COMPATIBILITY IMPACT (LESS THAN SIGNIFICANT)

School uses are considered "normally acceptable" where exterior noise exposures are 60 dBA CNEL or less and where interior noise exposures are 45 dBA CNEL or less. Future exterior noise levels at the site would be below 60 dBA CNEL. At a distance of 1,100 feet from the center of Boronda Road, and not taking into account any acoustical shielding provided by intervening terrain or structures, traffic noise levels at the site are calculated to be 55 dBA Leq/CNEL under future conditions. Under future conditions, with development of the area around the school site as envisioned in the proposed Specific Plan, shielding provided by these structures would further reduce traffic noise levels by 20 dBA or more. The Future Noise Contours and Impact Areas map provided as Figure N-1 in the City's General Plan indicates that future noise levels at the project site would be well below 60 dBA CNEL, which is in agreement with the noise modeling. A typical school structure provides about 15 dBA of noise reduction from exterior noise sources with windows open and 25 to 30 dBA of noise reduction with windows in the closed position. With exterior noise levels at the building facades 60 dBA CNEL or less, interior noise levels would be below 45 dBA CNEL with windows in the open or closed positions. Exterior and interior noise levels within proposed land uses would be considered compatible. This is a less than significant impact. No mitigation is required.

IMPACT: THE PROJECT WOULD RESULT IN LESS THAN SIGNIFICANT EXPOSURE OF PEOPLE TO EXCESSIVE GROUNDBORNE VIBRATION (LESS THAN SIGNIFICANT)

The construction of the proposed project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams, etc.) are used in areas adjacent to developed properties. Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity of the work area. Table 13, Vibration Sources Levels for Construction Equipment, presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Pile driving would not be expected as a foundation construction technique.

Equipment		PPV at 25 ft. (in/sec)	Approximate Lv	
			at 25 ft. (VdB)	
Pile Driver (Impact)	Upper range	1.158	112	
	Typical	0.644	104	
Pile Drive (Sonic)	Upper range	0.734	105	
	Typical	0.170	93	
Clam shovel drop		0.202	94	
Hydromill (slurry wall)	In soil	0.008	66	
	In rock	0.017	75	
Vibratory Roller		0.210	94	
Hoe Ram		0.089	87	
Large bulldozer		0.089	87	
Caisson drilling		0.089	87	
Loaded trucks		0.076	86	
Jackhammer		0.035	79	
Small bulldozer		0.003	58	

 Table 13
 Vibration Source Levels for Construction Equipment

Source: Illingworth & Rodkin 2015; *Transit Noise and Vibration Impact Assessment*, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration May 2006.

Vibration levels would vary depending on soil conditions, construction methods, and equipment used. No sensitive historic structures or buildings that are documented to be structurally weakened adjoin the project site. Therefore, groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in a significant vibration impact. Vibration levels for heavy equipment use (vibratory rollers, clam shovel drops) would be expected to approach the 0.3 in/sec PPV significance threshold at a distance of about 20 feet from the construction activity. The nearest existing residences are located about 1,150 feet from the project site. At this distance, vibration levels are calculated to be below 0.005 in/sec PPV. At this level, construction vibration would be below ambient vibration levels from sources such as foot falls and local traffic, would not be perceptible, and would be well below the architectural damage threshold.

The proposed Specific Plan proposes to develop residences and commercial uses adjacent to the project site. These potential uses would not be developed prior to completion of the school, which is anticipated to begin operations in 2018. Therefore, these future uses would not be subjected to construction vibration from the proposed project. This would be a less than significant impact. No additional mitigation is required.

IMPACT: PERMANENT NOISE LEVEL INCREASES FROM PROJECT TRAFFIC AND OPERATIONS (LESS THAN SIGNIFICANT)

A significant noise impact would occur if project operations or traffic would increase noise levels at noise sensitive receptors by three dBA CNEL or greater where exterior noise levels would exceed the normally acceptable noise level standard or by five dBA CNEL or greater where exterior noise levels would remain at or below the normally acceptable noise level standard with the project. Additionally, operational noise sources (excluding sporting events) are limited to 60 dBA CNEL at residential districts. School operations are not anticipated to take place between the hours of 9:00 pm and 7:00 am, so the additional five dB nighttime penalty would not apply.

Project Traffic Noise

Traffic volumes were supplied for four existing intersections and four proposed project driveway intersections in the vicinity of the project site. Based on a review of these traffic volumes, traffic noise levels are anticipated to increase by less than one dBA at all study intersections as a result of the project. This would be a less-than-significant impact.

School Operations

Schools are considered to be compatible with residential land uses. On-site noise sources associated with school operations would include mechanical equipment noise, student activities such as sports, conversations, etc., and low speed vehicle noise associated with parking and

student drop-offs and pick-ups. The closest existing noise sensitive uses are residences located about 1,150 feet south of the site, across East Boronda Road. Residences south of East Boronda Road are exposed to existing traffic noise levels of about 71 dBA CNEL.

Slow moving vehicles entering, exiting, and parking in the school parking lots would be similar in character, but considerably lower in level, to existing noise generated by vehicles traveling along East Boronda Road or other local roadways.

Specific details on mechanical equipment have not been provided at this time. Based on information from Illingworth & Rodkin, preparer of the project's noise impact assessment, typical school building roof-mounted heating, ventilation, and air conditioning equipment would be anticipated to generate a noise level of 45 to 60 dBA Leq at a distance of 50 feet from the equipment. At a distance of 1,150 feet, noise levels would be below 35 dBA Leq, more than 35 dB below ambient noise levels at the closest existing residences, and would not be audible above existing ambient noise (i.e., traffic noise from vehicles on East Boronda Road).

Proposed sports fields would include soccer, football, baseball, and softball practices and games. The school also proposes basketball courts and an all-weather track. Lighting is not proposed for any of these uses, so all practices and games would be conducted during daylight hours. Based on measurements conducted during high school sporting events, which would be anticipated to generate higher noise levels than middle school events, sporting event games would generate maximum noise levels of about 65 dBA, typically resulting from balls being hit (baseball/softball), whistles (football/soccer), and shouting from players and spectators. Noise levels generated during practices would be lower. Average noise levels of up to about 57 dBA Leq would occur at a distance of 100 feet from the middle of the field. Therefore, average noise levels from sports would be about three dB below the residential standard at the future residences adjacent to the project site. At a distance of 1,150 feet, noise levels during games would be about 45 dBA Leq and would be about 26 dBA below existing noise levels generated by traffic on East Boronda Road.

School operations are not anticipated to be audible above existing ambient noise levels at the nearest existing noise sensitive land uses. Operations would not exceed the 60 dBA CNEL threshold at residences or cause a measureable increase in noise levels at these locations. This would be a less-than-significant impact. No mitigation is required.

IMPACT: TEMPORARY NOISE INCREASE FROM CONSTRUCTION (LESS THAN SIGNIFICANT)

Construction noise impacts would be considered significant if hourly average noise levels received at noise sensitive residential land uses are 60 dBA Leq and at least five dBA Leq above the ambient noise environment when the duration of the noise-generating activities last for more than one year.

Building construction is expected to include a gymnasium, a multi-use building with kitchen, a media center with computer lab, an administrative building, two classroom buildings, playground and sports field areas, surface parking lots, landscaping, and driveway access roads. Outdoor areas are expected to include sports fields, parking lots, and landscaping. The project would also construct an off-site road to connect the project site to East Boronda Road. The school district anticipates breaking ground for the project in 2016 or 2017 and beginning operations in 2018, prior to construction of houses on adjacent property.

Construction equipment noise varies greatly depending on the construction activity performed, type and specific model of equipment, and the condition of equipment used. Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, the distance between construction noise sources and noise sensitive receptors, any shielding provided by intervening barriers or structures, and existing ambient noise levels.

Each construction activity would include a different mix of equipment operating. Construction noise levels would vary based on the amount of equipment in operation and location where the equipment is operating. Typical construction noise levels at a distance of 50 feet are shown in Table 14, Typical Ranges of Construction Noise Levels at 50 Feet and Table 15, Construction Equipment Noise Emission Levels at 50 Feet. Table 14, Typical Ranges of Construction Noise Levels AT 50 Feet, illustrates the average noise level range by typical construction phase type and Table 15, Construction Equipment Noise Emission Levels at 50 Feet, shows the maximum noise level range for different construction equipment. Table 15, Construction Equipment Noise Emission Levels at 50 Feet, levels are consistent with construction noise levels calculated for the project in the Federal Highway Administration Roadway Construction Noise Model, including the anticipated equipment that would be used for each phase of the project. Most construction noise is in the range of 80 to 90 dBA at a distance of 50 feet from the source.

From the tables above, construction activities are anticipated to generate hourly average noise levels of 78 to 89 dBA Leq at a distance of 50 feet during busy construction periods. Maximum instantaneous noise levels would be about 78 to 90 dBA Lmax at a distance of 50 feet. Pile driving is not anticipated as a construction method for this project. Noise levels would typically drop off at a rate of about 6 decibels per doubling of distance from the construction noise source.

The nearest existing residences are located about 1,150 feet from the project site. At this distance, hourly average noise levels during on-site construction are calculated to be 50 to 60 dBA Leq during busy construction periods. These closest residences back directly onto East Boronda Road. Construction noise levels would be higher during portions of construction of the off-site road connection to East Boronda Road that are located adjacent to residences. Based on traffic noise modeling of East Boronda Road, as described in the Environmental Setting, the existing traffic noise level at these residences is about 71 dBA CNEL. As a result, on-site construction would not be anticipated to be distinguishable from ambient noise sources.

Equipment	School F	Buildings	Roads and Surface Parkin Lots		
	\mathbf{I}^1	Π^2	Ι	II	
Ground Clearing	84	84	84	84	
Excavation	89	79	88	78	
Foundations	78	78	88	88	
Erection	87	75	79	78	
Finishing	89	75	84	84	
Source: Illingworth & Rodkin 2015.				•	

 Table 14
 Typical Ranges of Construction Noise Levels at 50 Feet

Note: 1. All pertinent equipment present at site.

2.

Table 15 Construction Equipment Noise Emission Levels at 50 Feet

Equipment Category	Lmax Level (dBA) ^{1,2}	Impact/Continuous ³
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor ⁴	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous

Minimum required equipment present at site. Adapted from U.S. EPA, Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

		- ·
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with	85	Continuous
engines larger than 5 HP		
Source: Illingworth & Rodkin 2015.		

Note:	1.	Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.
	2.	Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.
	3.	Impact activities impact the ground or construction surface, such as pile driving, while continuous activities emit more constant noise, such as construction vehicles.
	4.	Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

Construction of the off-site roadway could exceed 60 dBA Leq and five dB above the ambient environment at existing residences when construction is located nearest to these homes. However, this higher noise exposure would occur over a period of only a few weeks and would not be considered significant.

As previously noted, potential residences and commercial uses proposed as part of the draft Specific Plan would not be developed prior to completion of the school, which is anticipated to begin operations in 2018. Therefore, construction noise impacts would not be applicable to these potential future uses. No mitigation is required.

3.10 TRAFFIC

Information presented in this section is largely based on a traffic impact assessment prepared for the proposed project (Kimley-Horn 2015). This report is included as Appendix J. Comments received during the NOP process included specific comments requesting a thorough analysis of potential traffic impacts of the proposed project be considered by the EIR.

Environmental Setting

The project site is located northeast of the intersection of Boronda Road and Natividad Road. Regional access to the project area is provided by U.S. Highway 101. Local access to the project site area is provided by Boronda Road to the south, Natividad Road to the west, and Old Stage Road to the east. Access to the project site itself is via private, unpaved roads. Existing public roads are described below and shown on Figure 11, TIA Study Area and Figure 12, Existing Intersection Lane Geometry and Peak Hour Volumes.

Existing Roadway Network

Boronda Road is an east-west major arterial that runs from U.S. Highway 101 to the west to Williams Road to the east. Boronda Road is located south of the project site and contains one travel lane in each direction. It will be the primary access arterial for the site. The posted speed limit, in the vicinity of the site, is 45 miles per hour.

Natividad Road is a north-south minor arterial that runs from East Bernal Drive to the south to Old Stage Road to the north. It is located adjacent, and to the west, of the proposed Specific Plan area. It contains one travel lane in each direction north of East Boronda Road where it serves agricultural uses and two travel lanes in each direction south of East Boronda Road where it serves residential uses. The posted speed limit, in the vicinity of the site, is 45 miles per hour.

Independence Boulevard is a north-south collector that terminates at its intersection with East Boronda Road to the north and at its intersection with Constitution Boulevard to the south. Two travel lanes in each direction are provided on Independence Boulevard and the roadway serves residential uses, along with direct access to Everett Alvarez High School, located southeast of the East Boronda Road intersection. The posted speed limit is 35 miles per hour.

Hemmingway Drive is a north-south collector that terminates at its intersection with East Boronda Road to the north and at its intersection with Fitzgerald Street to the south. One travel lane in each direction is provided and the roadway serves residential uses. The posted speed limit is 30 miles per hour. Constitution Boulevard is a north-south minor arterial that extends from East Boronda Road to the north and East Laurel Drive to the south. There are two travel lanes in each direction and the roadway serves residential uses. The posted speed limit is 45 miles per hour.

Constitution Boulevard is a north-south minor arterial that extends from East Boronda Road to the north and East Laurel Drive to the south. There are two travel lanes in each direction and the roadway serves residential uses. The posted speed limit is 45 miles per hour.

Existing Intersection Level of Service Operations

Existing intersection turning movement counts were conducted in November 2014 at the existing assessment area intersections. The counts were conducted during the typical AM peak period (7:00 - 9:00 AM) with the peak hour analyzed from 7:30 AM – 8:30 AM. The counts were also conducted during the typical school peak afternoon traffic period (2:00 PM – 4:00 PM) with the school PM peak hour analyzed from 3:00 PM – 4:00 PM. The intersection turning movement volumes were balanced, where appropriate, and corresponding peak hour factors, heavy vehicle percentages, and bicycle and pedestrian volumes were utilized.

The intersection level of service under existing conditions was calculated for each assessment intersection and the results can be seen in Table 16, Existing Conditions Intersection Level of Service Summary. As shown, during the AM peak hour, the following intersections operate below the City threshold of LOS D:

- #1: Natividad Road / East Boronda Road
- #2: Independence Boulevard / East Boronda Road
- #3: Hemingway Drive / East Boronda Road





Source: Kimley-Horn and Associates, Inc. 2015

Figure 11 Traffic Impact Assessment Study Area

SUHSD New Middle School #5 Construction EIR

3.0 ENVIRONMENTAL EFFECTS

This side intentionally left blank.

Existing Conditions Intersection Geometry



Existing Conditions Intersection Turning Movements



"Intersections # 5-8 are Project driveways and are only included in Plus Project Conditions.

















U

Z

E

Existing Intersection Lane Geometry and Peak Hour Volumes

Source: Kimley-Horn and Associates, Inc. 2015

Figure 12

SUHSD New Middle School #5 Construction EIR



3.0 ENVIRONMENTAL EFFECTS

This side intentionally left blank.

#	Intersection	Control	AM Peak	School PM
		Туре	LOS	Peak LOS
1	Natividad Road/East Boronda Road	Signal	F	F
2	Independence Blvd/East Boronda Road	Signal	Е	С
3	Hemingway Drive/East Boronda Road	SSSC	F	F
4	Constitution Blvd/East Boronda Road		В	В
Source:	Kimley-Horn 2015.			

 Table 16
 Existing Conditions Intersection Level of Service Summary

Notes: The 2002 City of Salinas General Plan indicates the goal is to maintain a LOS D or better for all intersections. SSSC = side-street stop-controlled.

As shown, during the school PM peak hour, the following intersections operate below the City threshold of LOS D:

- #1: Natividad Road / East Boronda Road
- #3: Hemingway Drive / East Boronda Road

From field observations at these intersections, the intersection deficiencies are primarily caused because of school traffic from Everett Alvarez High School during the AM peak hour and school PM peak hour. Concentrated school traffic causes significant delays that occasionally spill to adjacent intersections.

Existing Transit Facilities

Monterey-Salinas Transit provides public bus services to the vicinity of the project site. Bus routes 45, 56, and 95 operate along East Boronda Road, Independence Boulevard, and Constitution Boulevard near the project site.

Bus Service Route 45 provides service to/from the Salinas Transit Center and the Northridge Mall. This route has a stop approximately one half mile to the intersection of East Boronda Road / Hemmingway Drive along Independence Boulevard. Bus Route 45 operates daily between 7:05 AM and 6:57 PM with 60 minute or greater headways.

Bus Service Route 56 provides service to/from the Price Fitness Center in Monterey and the intersection of North Main Street / San Juan Grade Road in Salinas. This route has a stop approximately 3/4 mile to the intersection of East Boronda Road / Hemmingway Drive along Independence Boulevard. Bus Route 56 operates daily between 6:55 AM and 6:13 PM within

the City of Salinas and only runs three lines per day, two in the morning and one in the evening. This route is primarily used for travel between Monterey and Salinas.

Bus Service Route 95 provides service to/from Northridge Mall and the intersection of Mesquite Drive / Tumbleweed Drive, just south of East Boronda Road. This route has a stop approximately ¹/₂ mile to the intersection of East Boronda Road / Hemmingway Drive along Independence Boulevard. Bus Route 95 operates daily between 7:02 AM and 5:20 PM with 120 minute headways.

School buses are anticipated to be used for the proposed project. Specific details on bus quantities and routes are to be determined by the school district and not decided at this time.

Existing Pedestrian Facilities

Pedestrian facilities are comprised of sidewalks, crosswalks, and off-street paths. In the assessment area, sidewalks are provided only at the following locations on the existing streets:

- **East Boronda Road**: Eight-foot meandering sidewalk exists only on the southern side within the project assessment area.
- **Independence Boulevard**: Eight-foot sidewalk exists only on the eastern side from East Boronda Road to the south.
- **Hemmingway Drive**: Sidewalks exist on both sides of roadway with an eight-foot sidewalk on the western side and a five-foot sidewalk on the eastern side of roadway.
- **Constitution Boulevard**: Five-foot sidewalks exist on both sides of roadway.

Existing Bicycle Facilities

Bicycle facilities range from Class I to Class III Bikeways. Descriptions of the bicycle facility classifications are provided below.

Class I Bikeway (Bike Path) – A Class I Bikeway is a physically separated bike path that does not share the roadway with motorized vehicles. They can be separated by either open space or a physical barrier and are generally two-way facilities.

Class II Bikeway (Bike Lane) – A Class II Bikeway is a bike lane that shares a portion of the roadway with motorized vehicles. They are separated by striping and are signed and marked for exclusive use by bicycle traffic. Class II Bikeways provide service for one-way bicycle traffic and are located outside of the travel lanes for motorized vehicles.

Class III Bikeway (Bike Route) – A Class III Bikeway is a bike route that shares the roadway with motorized vehicles. They are identified by signs and not separated by striping. Class III Bikeways are utilized in locations that do not have Class I or Class II facilities or to connect Class II Bikeways to provide a continuous bikeway system.

According to the 2002 City of Salinas Bikeways Plan map, there are multiple existing bicycle facilities within the project area. The Galiban Creek trail/bike path is located west of Independence Boulevard and connects Boronda Road to Constitution Boulevard. The Creekbridge trail/bike path provides a connection between Independence Boulevard and Nantucket Boulevard. Class II bike lanes are provided on East Boronda Road, Nantucket Boulevard, Independence Boulevard, and Constitution Boulevard. A future bike lane is identified on Hemingway Drive between Nantucket Boulevard and East Boronda Road.

Regulatory Setting

Regional Plans and Regulations

Regional Transportation Plan. The Transportation Agency for Monterey County is responsible for the preparation of the Regional Transportation Plan for Monterey County. The 2014 Regional Transportation Plan's purpose is to provide policy guidance, plans, and programs to attain a balanced comprehensive, multimodal transportation system; propose solutions to transportation issues; consider all modes of travel; and, identify anticipated funding for projects and programs. 2014 Regional Transportation Plan also includes the region's Sustainable Communities Strategy, to coordinate transportation investments with land use patterns. In the vicinity of the project site, the Regional Transportation Plan includes the following projects:

- US 101 Alvin Drive. Construct overpass/underpass and four lane street structure.
- Russell Road Widening. Widen street from U.S. Highway 101 to San Juan Road.

Local Plans and Regulations

City of Salinas Traffic Improvement Program. According to the City of Salinas Traffic Improvement Program 2010 Update, traffic impact fees are collected from developers to fund future improvements citywide. Improvements were identified for East Boronda Road, Natividad Road, Independence Road, and Constitution Road along with their inclusive intersections within the 2010 City of Salinas Traffic Improvement Program.

Salinas Bikeways Plan

The Salinas Bikeways Plan includes goals and actions along with maps identifying the City's existing and proposed bikeways, bike parking facilities, bike support facilities, routes for buses with bike racks, and the design requirements for those facilities.

Standards of Significance

CEQA Guidelines appendix G indicates that a project may have a significant effect on the environment if it would:

- conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit (see specific thresholds of significance below);
- conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- result in inadequate emergency access; or
- conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Policy Issues and Thresholds of Significance

The traffic impact assessment area covers the jurisdiction of two public agencies, the City of Salinas and the County of Monterey. The City of Salinas and the County of Monterey have established LOS D as the general threshold for acceptable overall traffic operations for signalized, all-way stop controlled, and one- and two-way stop controlled intersections. LOS F operations on side street approaches are adverse effects that warrant improvements at one- and two-way stop controlled intersections.

The significance criteria utilized in the traffic impact assessment is consistent with the adopted policies, regulations, goals and guidelines for the City of Salinas and County of Monterey as applicable to the facilities under their jurisdiction. Although the school district is not bound to meet these standards, they are used in this EIR to measure traffic effects. The impact criteria are presented below.

Signalized Intersections. Significant impacts at signalized intersections are defined to occur when:

- The addition of project traffic causes intersection operations to degrade from an acceptable level (LOS D or better) to an unacceptable level (LOS E or worse), or
- Project traffic is added to an intersection operating at an unacceptable level (LOS E or worse).

Unsignalized Intersections. Significant impacts at unsignalized intersections are defined to occur when:

- The addition of project traffic to any unsignalized intersection operating at LOS F under existing conditions; or
- Any traffic signal warrant is met.

Pedestrian and Bicycle Facilities. Significant impacts to pedestrian and bicycle facilities are defined to occur when:

- The project conflicts with existing or planned pedestrian or bicycle facilities, or
- The project creates pedestrian and bicycle demand without providing adequate facilities.

Transit Facilities. Significant impacts to transit facilities are defined to occur when:

- The project conflicts with existing or planned transit facilities, or
- The project generates potential transit trips without providing adequate facilities for pedestrians and bicycles to access transit routes and stops.

Parking Requirements. The City of Salinas has established codes for elementary and middle school (grades K-8) parking requirements. Code 37-50.360 states that elementary and middle schools are to have an off-street parking requirement of three parking spaces per classroom plus off-street bus and loading spaces. The school district is not bound by these standards.

City Intersections. Consistent with the significance impact criteria documented in the General Plan, the City states a goal to maintain an LOS D or better for all intersections. Therefore, the following conditions would result in a significant impact at a City intersection:

- If the intersection operates at an acceptable LOS (i.e. LOS A, B, C, or D) without the project and degrades to an unacceptable LOS (i.e. LOS E or worse) with the project, then it is a significant impact.
- If the intersection operates at an unacceptable LOS (i.e. LOS E or worse) without the project and the project increases the average control delay (or highest control delay for SSSC intersections) then it is a significant impact.

Traffic Analysis Methodology

The traffic impact assessment prepared for the proposed project was prepared consistent with the direction of City staff, school district staff, the General Plan, and the Monterey County Traffic Impact Study Guidelines.

The proposed project would generate new vehicular trips that will increase traffic volumes on the nearby street network. To assess changes in traffic conditions associated with the proposed project, the following intersections, listed in Table 17, Assessment Area Intersections, were selected for evaluation.

#	Intersection	Intersection Control	Existing or Future Intersection
1	Natividad Road/East Boronda Rd	Signal	Existing
2	Independence Blvd/East Boronda Rd	Signal	Existing
3	Hemingway Drive/East Boronda Rd	SSSC	Existing
4	Constitution Blvd/East Boronda Rd	Signal	Existing
5	School Loop Entrance/AJ Street	Uncontrolled	Future
6	School Loop Exit/AA Street	SSSC	Future
7	School Parking Entrance/K Street	Uncontrolled	Future
8	School Parking Exit/K Street	SSSC	Future
Source:	Kimley-Horn 2015.		

Table 17	Assessment Are	a Intersections
----------	----------------	-----------------

Notes: SSSC = side-street stop-controlled.

The project's traffic impact assessment was based on the follow traffic conditions:

- Existing Conditions Based on traffic counts taken in November 2014 and the existing roadway geometry and traffic control at the time traffic counts were conducted. The City allows for traffic counts conducted within one year of the notice to proceed to be utilized.
- **Existing Plus Project Conditions** Based on existing traffic volumes added to traffic generated by the proposed project. Existing roadway geometry with proposed project roadway improvements and traffic controls are assumed for this scenario.
- Cumulative Conditions Based on future year traffic projections for year 2030. For consistency with the most recent travel demand model, the traffic volumes were obtained from the previously prepared Salinas Sphere of Influence Amendment and Annexation Supplemental Traffic Impact Analysis prepared by Fehr & Peers dated July 31, 2007.
- Cumulative Plus Project Conditions Based on future year traffic projections plus traffic generated by the proposed project. This scenario assumes roadway geometry and traffic control present in 2030.

The project's traffic impact assessment was analyzed for the following analysis hours:

- AM Peak Hour One hour of the adjacent street traffic peak period. For this assessment, the AM peak hour is 7:30 – 8:30 AM.
- School PM Peak Hour One hour in the afternoon when local schools are dismissed. This
 is earlier than the typical PM peak hour of adjacent street traffic. Traffic generated by the
 proposed project is expected to be significantly lower during the typical PM peak hour of
 adjacent street traffic. For this project's traffic impact assessment the school PM peak hour
 is 3:00 4:00 PM.

These analysis hours include the anticipated school start and dismissal times of 8:45 AM and 3:29 PM, respectively. The peak hour factor is a technical metric used to account for the intensity of vehicular flow over the course of the hour. A lower peak hour factor corresponds to a more concentrated vehicular flow (i.e., more intensive) over a set amount of time. Given the nature of school drop-off and dismissal traffic, the peak hour factor in plus project conditions was lowered for the school-specific turning movements at applicable assessment intersections to accurately project the intensity of school trips during the assessment peak hours.

Analysis of significant environmental impacts at intersections was based on the concept of Level of Service ("LOS"). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Levels of service for this assessment were determined using methods defined in the Highway Capacity Manual 2010 and Synchro 9 software.

Project impacts were determined by comparing conditions with the proposed project to those without the proposed project. Significant impacts for signalized intersections are created when traffic from the proposed project causes the LOS to fall below a specific threshold. For unsignalized intersections, deficient LOS suggests recommendations for improvements to the type of traffic control, such as signalization. A peak hour signal warrant is evaluated to determine if an intersection meets the volume requirements for a traffic signal.

Analysis, Impacts and Mitigation

Project Traffic Estimates

The amount of traffic produced by a new development and the locations where that traffic will occur are estimated based on three factors: (1) trip generation, (2) trip distribution, and (3) trip assignment. These factors are described more fully below.

Trip Generation. To be conservative on the estimate of vehicular traffic volumes, no walk or bicycle trip reductions are considered. The New Middle School trip generation can be seen in Table 18, Project Trip Generation. As shown below, it is anticipated that there will be 432 AM peak hour trips generated and 240 School PM peak hour trips generated. Full buildout of the school is considered in both existing and cumulative conditions, per conversations with school district staff.

Land Use (Units)	Trip Rate	Daily Trips	AM Peak Hour Peak Trips In	AM Peak Hour Peak Trips Out	PM Peak Hour Peak Trips In	PM Peak Hour Peak Trips Out	
Students (800)	1.62	1,296	238	194	108	132	
Source: Kimlev-Horn 2015							

Table 18	Project Trip (Generation

Note: Trip generation rates used from Land Use #522: Middle School/Junior High School in the ITE Trip Generation Manual, 9th edition. PM trips are during School PM peak period.

Trip Distribution and Assignment. The subarea travel demand model is based upon the Association of Monterey Bay Area Governments model, which is used for estimating long-range traffic forecasts for streets and highways in the greater Salinas area. This method was approved and provided by City staff.

Because the model is for the entire future growth area, refinements were made to the distribution after an assessment of the existing conditions intersection turning movement counts and a

background knowledge of the assessment area. For the purposes of a middle school, it is anticipated that trips would primarily be routed to and from the existing residential areas of the City south and west of East Boronda Road.

It is important to note that the existing and cumulative conditions trip distributions are the same but the project trip assignments vary slightly due to the buildout of the cumulative roadway network in year 2030. More trips are expected to utilize the proposed collector roadways in the Specific Plan area, specifically AA Street and AF Street in cumulative conditions. The existing conditions trip distribution and trip assignment are displayed in Figure 13, Existing Conditions Project Trip Distribution and Assignment, and the resulting existing plus project intersection turning movements are displayed in Figure 14, Existing Plus Project Intersection Turning Movements.

Environmental Topics Eliminated from Further Consideration

Air Traffic Patterns. The project site is located approximately 3.5 miles north of the Salinas airport and nine miles east of the Marina airport and would not result in a change in air traffic patterns for either airport. Therefore, no further discussion on this topic is provided in this section.

Emergency Access. The project site will be located near major roadways which will allow for emergency access to and from the site. The proposed project would not interfere with emergency responses or operations. Therefore, no further discussion on this topic is provided in this section.

Decreased Performance of Public Transit, Bicycle, or Pedestrian Facilities. The proposed project would include features for public transit (and district-provided transit), bicycle, and pedestrian facilities and would not decrease the performance of existing facilities. Therefore, no further discussion on this topic is provided in this section.

IMPACT: THE PROJECT WOULD RESULT IN TRAFFIC DELAYS AT THE INTERSECTION OF NATIVIDAD ROAD AND EAST BORONDA ROAD (LESS THAN SIGNIFICANT WITH MITIGATION)

Discussion. The resulting Existing Plus Project Conditions intersection level of service was analyzed at each assessment intersection and the results can be seen in Table 19, Existing Plus Project Conditions Intersection Level of Services, below.

			Existing			Existing Plus Project			ect	
#	Intersection	Control	AM I	Peak	PM Delay	Peak	AM Peak		PM Peak	
		Туре	Delay	/105	Delay	7105	Delay	/L05	Delay/LUS	
1	Natividad Road/ East Boronda Road	Signal	139.6	F	94.9	F	162.8	F	104.8	F
2	Independence Blvd/ East Boronda Road	Signal	72.1	Е	31.8	C	66.1	Е	35.6	D
3	Hemingway Dr/ East Boronda Road	SSSC/ Signal	OVR FL	F	186. 7	F	83.3	F	44.9	D
4	Constitution Blvd/ East Boronda Road	Signal	18.5	В	16.5	В	20.5	С	17.5	В
5	School Loop Entrance/ AJ Street						8.1	A	7.5	A
6	School Loop Exit/AA Street	SSSC					0.1	A	0.1	A
7	School Parking Entrance /K Street						0.1	A	0.1	A
8	School Parking Exit / K Street	SSSC					0.1	А	0.1	Α

 Table 19
 Existing Plus Project Conditions Intersection Level of Services

Source: Kimley-Horn 2015.

Notes: PM trips are during school PM peak period. SSSC = side-street stop-controlled. OVRFL = exceeds model capacity

As shown, during the AM peak hour, the following intersections operate below the City threshold of LOS D. Since these intersections operated below the threshold in existing conditions without the project and the addition of the project does not degrade the intersection operations, the proposed project is not considered to have a significant impact:

- #2: Independence Boulevard / East Boronda Road
- #3: Hemingway Drive / East Boronda Road

The following intersection level of service degrades with the addition of the project in both the AM and school PM peak hours and is thus a significant impact:

#1: Natividad Road / East Boronda Road

SUHSD New Middle School #5 Construction EIR

Figure 13 Existing Conditions Project Trip Distribution and Assignment

U

M

E

Source: Kimley-Horn and Associates, Inc. 2015





Existing Conditions Project Trip Assignment



3.0 ENVIRONMENTAL EFFECTS

This side intentionally left blank.

SUHSD New Middle School #5 Construction EIR

Existing Plus Project Intersection Turning Movements Figure 14

Source: Kimley-Horn and Associates, Inc. 2015







U

M

E

3.0 ENVIRONMENTAL EFFECTS

This side intentionally left blank.

As shown above in Table 19, Existing Plus Project Conditions Intersection Level of Services, Intersection #1: Natividad Road / East Boronda Road level of service degrades with the addition of the proposed project in both the AM and school PM peak hours. The intersection operates at LOS F during the AM and school PM peak hours under existing conditions, with delays of 139.6 and 94.9 seconds/vehicle, respectively. With the addition of project trips, this intersection continues to operate at LOS F during the AM and school PM peak hours under existing plus project conditions, with delays of 162.8 and 104.8 seconds/vehicle, respectively. Because the intersection is degraded and operates at LOS F, which is worse than the City standard set for intersection of LOS D, this is a significant impact. However, implementation of the following mitigation would reduce potential impacts to a less-than-significant level.

Mitigation Measure

T-1. Prior to opening the school, the Salinas Union High School District shall, in conjunction with the City of Salinas, optimize the coordinated cycle lengths along East Boronda Road to 133 second cycles. The intersection of Natividad Road and East Boronda Road is coordinated with adjacent signals through InSync wiring, as indicated by the City.

With implementation of this measure, the intersection will continue to operate at LOS F during the AM and school PM peak hours, with delays of 138.3 and 93.6 seconds/vehicle, but with average control delays better than existing conditions. With the implementation of Mitigation Measure T-1, the project's impacts to the Natividad Road and East Boronda Road intersection would be mitigated, eliminating the proposed project's contribution, thereby reducing the potential impact to a less-than-significant level. The remaining studied intersection operations would not be degraded during AM and school PM peak hours under existing plus project conditions, and project traffic would have less than significant impacts on these intersections.

IMPACT: THE PROJECT WOULD CREATE A HAZARD AT THE T-INTERSECTION SOUTH OF INTERSECTION #5 ON AJ STREET (LESS THAN SIGNIFICANT WITH MITIGATION)

As part of the proposed project's traffic impact assessment, an assessment of the current conceptual site plan was conducted to provide site design recommendations which would reduce the potential for hazards to result from design features as the proposed project's site plan is further developed. This assessment included a review of site distance and access management, student drop-off and pick-up operations, safe routes to school features, pedestrian elements, and bicycle elements.

Sight Distance and Access Management

The proposed project's traffic impact assessment identified that typically urban collection intersections should be greater than 670 feet from any adjacent intersection. In the project's original conceptual site plan, the assessment commented on the project site's driveway intersection spacing not meeting these distance standards. Specifically, the assessment concluded that the northern Media Center/Administration Building Parking Lot Access point (Intersection #8), the southern Staff Parking Lot entrance, and the Specific Plan intersection along K Street to the west are spaced too closely for adequate storage capacity and sight distance safety at these three intersections.

In response to these concerns expressed in the project's traffic impact assessment, a revised site plan was prepared which shifted site features to allow more spacing between intersections and site access points. These changes to site design would reduce potential impacts and impacts are considered to be less than significant.

Student Drop-Off and Pick-Up Operations

Student drop-off and pick-up operations were analyzed by the traffic impact assessment in terms of vehicular queuing. Student drop-off and pick-up operations were analyzed in terms of vehicular queuing.

The new middle school would follow the typical arrival and departure patterns of other middle schools within the school district. The anticipated arrival time is expected to be for a 25 to 30 minute period preceding the first bell around 8:45 AM and for a 25 to 30 minute period preceding the dismissal bell around 3:30 PM and another 15 to 20 minute period after.

In total, there would be at most 238 vehicle trips arriving for the queue in the AM peak hour and 108 vehicle trips arriving for the dismissal queue in the school PM peak hour; this is inclusive of anticipated bus trips for each peak period. Based on engineering and professional judgment, conservative estimates for drop-off and pick-up dwelling times of 30 seconds and 60 seconds were used for vehicular dwell times in the AM and school PM peak hours, respectively. The drop-off and pick-up dwell time is the assumed amount of time it takes for a vehicle to enter a dedicated pick-up/drop-off space within the school loop and for children to safely exit or enter the car. For this analysis, it is assumed that at least three dedicated drop-off/pick-up spaces would be provided in the school loop following the official design review process. A dedicated drop-off/pick-up space is one that is at the front of the drop-off/pick-up queue and provides children direct access to the sidewalk and school entrance. Having dedicated spaces provides school-aged children safe and controlled access locations between the school and vehicles.

It is estimated the average arrival rate during the drop-off period would be 7.93 vehicles/minute during the AM peak hour and 3.60 vehicles/minute during the school PM peak hour. With this assumption, the project would need to provide at least 1,450 feet of on-site queuing space for the AM peak hour queue and at least 450 feet of on-site queuing space for the school PM peak hour queue.

Buses are currently expected to access the school site by using the staff parking entrance and exit on the western side of the project site. Buses should not queue within the parking lot itself as it may block parking space access for passenger vehicles. Resultantly, considerations must be made to consider adequate storage for bus queueing during drop-off and pick-up operations. School buses are typically 45 feet long; based off an assessment of the preliminary site-plan, there is approximately 400 feet of curb storage in the entrance to the staff parking area on the northwestern side of the site. With buffer distances, that equates to a school bus storage capacity of approximately seven buses. The number of school buses anticipated to bus students to and from the school has not been confirmed at this time, however, considerations will be made during the final design review process subsequent to an established bussing plan to ensure adequate storage is provided on-site. Regardless of the final design review and bussing plan, Mitigation Measure T-3, requiring the installation of an all-way stop sign at the T-intersection immediately south of intersection #5 in the project's traffic impact assessment on AJ Street, would apply to the proposed project and would ensure potential impacts would be reduced to a less-than-significant level. This all-way stop sign would provide the benefit of allowing children walking and riding their bicycles to safely cross the street from the planned future neighborhood into the school area via a striped crosswalk, as indicated on site design plans, and provide opportunities for the side street traffic to enter from the neighborhood southeast of the school site.

Safe Routes to School Assessment

The proposed project and surrounding roadway facilities were evaluated to determine recommendations for safe routes to school infrastructure implementation. Safe routes to school infrastructure currently exists surrounding the adjacent Everett Alvarez High School and Creekside Elementary School. Connecting to this existing network would provide school-aged children safer pedestrian and bicycle facilities to access the future growth area from south of East Boronda Road, in addition to circulation within the future growth area surrounding the school. Safe routes to school elements are recommended if they do not conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by existing transit, bicycle, or pedestrian facilities and plans. Final site design plans would incorporate safe routes to school elements.

Pedestrian Elements

As part of the proposed project, sidewalks would be constructed along all of the project site frontages on K Street, AA Street, and AJ Street. It is anticipated that pedestrians would use these sidewalks to access the project site from their residences. Additionally, the construction of school crosswalks, pedestrian countdown signals, and stop-sign controls will be required. These site design features would all be constructed in compliance with applicable standards. Additionally, Mitigation Measure T-2 would ensure potential impacts to pedestrians are reduced to a less-than-significant level.

Bicycle Elements

Bicyclists will have access to the project site using existing bicycle facilities along Hemmingway Drive, Constitution Boulevard, and the southern side of East Boronda Road. The project's traffic impact assessment recommended that as part of the Specific Plan buildout, efforts be taken to enhance and connect to the already existing bicycle safe routes to school elements within the City. Additionally, Mitigation Measure T-2 would ensure potential impacts to bicycle users are reduced to a less-than-significant level.

Parking Requirements

Based on 27 classrooms planned for the new middle school and City parking requirements (three spaces per classroom), the proposed project would be required to have 81 parking spaces. Additionally, American with Disabilities Act ("ADA") requirements would stipulate that at least four of the parking spaces on the site be ADA accessible spaces.

The project proposes to provide a total of 136 parking spaces, in addition to bus and passenger loading spaces. Therefore, the proposed project would meet City requirements for on-site parking and would be able to accommodate ADA requirements. No mitigation is required related to proposed on-site parking.

Mitigation Measure

T-2. Prior to the school opening, the Salinas Union High School District shall ensure that the T-intersection immediately south of intersection #5 in the project's Traffic Impact Assessment on AJ Street has an all-way stop sign installed.

3.11 EFFECTS FOUND NOT TO BE SIGNIFICANT

Geology & Soils

A Geologic and Seismic Hazards Assessment Report was prepared for the proposed project (Kleinfelder, 2013) and is included as Appendix K. The setting and brief analysis for geology and soils below are largely based on this report. The City of Salinas is not located within an Alquist-Priolo Earthquake Fault zone and the potential for ground rupture is low. According to the General Plan EIR, the project site is located in an area with low susceptibility to seismic hazards, and based on 1980 U.S. Geologic Survey mapping, the planning area is located within the area of "least landslide and erosion susceptibility." The entire City is located in a Seismic Risk Zone IV, which is the highest potential risk category due to the frequency and magnitude of earthquake activity in the region as determined in the most recent adopted California Building Code. Damage from earthquakes is often the result of liquefaction, which occurs primarily in areas of recently deposited sands and silts and in areas of high groundwater levels. Especially susceptible areas include sloughs and marshes that have been filled in and covered with development. Salinas has several former wetland areas that have been "reclaimed" (drained and filled) and developed. In addition, Salinas rests on almost 1,800 feet of alluvium, which may increase the threat of liquefaction in the event of seismic activity (City of Salinas, 2002).

The impacts of geology and soils related hazards on future development within the Future Growth Area, including the project site, were evaluated in the General Plan EIR and it was concluded that with the implementation of mitigation measures, adverse effects would be less than significant. Examples of mitigation measures include requiring development to implement the most recent geologic, seismic, and structural guidelines including the most recent California Building Code. The proposed project's building plans would be subject to the review and approval of the Office of the State Architect.

Because there are no mapped active faults in the general vicinity of the proposed school campus, the potential for fault-related ground surface rupture at the site is considered low. The project's geotechnical report concluded that the potential for liquefaction to occur at the site is considered low. However, the project's geotechnical report recommended a site-specific geotechnical study should be performed at the site to explore the subsurface soil and groundwater conditions and to fully characterize the liquefaction potential and this would be a project condition of approval.

Lateral spreading is a potential hazard commonly associated with liquefaction where extensional ground cracking and settlement occur as a response to lateral migration of subsurface liquefiable material. This phenomenon typically occurs adjacent to free faces such as slopes, creek channels, harbors, and canals. No channelized stream banks or free faces are located within a distance that would be considered hazardous to create this phenomenon at or near the site. The potential soil

expansion at the site was characterized by the project's geotechnical report via laboratory testing of the surficial soils and was generally found to be low to non-plastic. A site-specific geotechnical report for the project site would further address the potential presence of expansive soils at the side and provide design measures.

A site-specific geotechnical report would be required to be prepared in compliance with Title 5, California Code of Regulations, prior to development of the site. Future development on the site would be required to comply with the recommendations of the site-specific geotechnical report. No plan approvals would be considered by the Division of the State Architect until the preparation of a site-specific geotechnical report and the incorporation of the report findings into all development plans for the project site. Abidance with this standard requirement would ensure potential impacts would be less than significant. The proposed project would not exacerbate seismic activity and would have a less-than-significant impact.

The project site would be connected to the City's sewer system and would not use septic tanks for alternative wastewater disposal systems on the site for the disposal of wastewater.

Land Use & Planning

The project site and surrounding areas are currently undeveloped and in agricultural production. The project site is not located within an established community and is not located within any habitat conservation or community conservation plan. Therefore, implementation of the proposed project would have no impacts to an established community or habitat/community conservation plan.

The project site is designated as Residential Medium Density, Public/Semi Public, Open Space and Mixed Use by the General Plan. Surrounding areas are designated for residential, mixed use, and open space uses. The project site and its surrounding area are located within the Future Growth Area and the City's Sphere of Influence. The project site is identified as the future site of a middle school, with a zoning of Public Semi-Public in the proposed Specific Plan. The proposed Specific Plan identifies surrounding land uses as mixed-use, residential, retail, and office uses. Although the proposed Specific Plan has not yet been approved and is undergoing environmental review, the project site is located within an area designated for future development, and specifically for the location of a school.

The project site is zoned by the City as New Urbanism Interim. The proposed project would be an allowable use within this zoning district. No amendments to the General Plan or zoning code would be required for approval of the proposed project on the project site. Both the General Plan and Salinas Municipal Code state that future development within the Future Growth Areas requires the development to be included within a specific plan. The proposed project is envisioned in the proposed Specific Plan; however, this plan has yet to be approved at the time of preparation of this EIR. Furthermore, based on State of California Government Code 53094, the school district can consider itself exempt from these City regulations.

As this does not represent a potential environmental impact, no further discussion of this required approval is included in this EIR. Implementation of the proposed project would not conflict with any applicable land use plan or policy adopted for the purpose of avoiding or mitigating an environmental effect.

Mineral Resources

Based on the General Plan EIR, there are no known mineral resources located on the project site or within the direct vicinity of the site. Therefore, implementation of the proposed project would not result in a loss or availability of a known mineral resource or know mineral resource recovery site.

Population and Housing

Implementation of the proposed project would not induce substantial population growth either directly or indirectly. Although construction and operation of a middle school on the project site would accommodate students from the surrounding area anticipated from future residential development, the future middle school would also help to alleviate over-crowding in other school district schools by accommodating students at the new school.

The existing project site is vacant and in agricultural production. Therefore, implementation of the proposed project would not displace people or housing necessitating the construction of replacement housing elsewhere.

Public Services

The proposed project would result in an incremental increase in demand for police services and fire department emergency medical services, but would not trigger a need for construction of new facilities. The General Plan anticipated future development within the Future Growth Area and the proposed project would be in line with planned development in the project area and for the project site. Therefore, the incremental increase in demand for police and fire protection services are considered to be accommodated by anticipated future growth and would be less than significant.

The proposed project would not, in and of itself, generate new demand for construction of other public service or government services facilities or parks. The project is not population generating and would not adversely impact existing school facilities, but would alleviate over-crowding at

other middle schools and thereby assist in reducing potential adverse impacts which may be occurring at other school facilities.

Recreation

Anticipated future development on the project site would not increase the use of existing neighborhood and regional parks or other recreational facilities as the proposed school itself would include recreational facilities on the site. Any potential impacts from the establishment of recreational facilities located on the project site associated with the middle school are addressed throughout this EIR. Therefore, potential adverse physical effects on the environment are considered throughout this EIR.

Utilities and Service Systems

Wastewater Infrastructure

The Monterey Regional Water Pollution Control Agency (MRWPCA) provides regional wastewater conveyance, treatment, disposal, and recycling services to all of the City of Salinas. Wastewater treatment for the planning area is provided by the MRWPCA's Regional Treatment Plant and recycling is provided by the MRWPCA's Salinas Valley Reclamation Plant. Future development consistent with the General Plan will require additional wastewater service. The General Plan EIR evaluated the impact of General Plan buildout on the ability of MRWPCA to provide wastewater treatment service. The General Plan EIR concludes that the MRWPCA will continue to be able to provide wastewater treatment consistent with Regional Water Quality Control Board standards (City of Salinas, 2007).

The General Plan EIR states that the MRWPCA would have sufficient capacity for some time into the future; however, it will be eventually necessary to increase the capacity of the Salinas Pump Station to provide adequate service to the Future Growth Area. The General Plan EIR evaluated this impact and concluded that with the implementation of mitigation measures, MRWPCA does not anticipate any problems in funding future expansions when they become necessary. After the final EIR was certified, potential issues related to capacity of the Regional Treatment Plant were identified. The MRWPCA flow projections had been based on the 2004 AMBAG population estimates. The AMBAG population projections may underestimate the future population of the City; therefore the MRWPCA projections could underestimate the flow projections for the Regional Treatment Plant. Therefore, the impacts associated with development consistent with the buildout of the general plan exceeding the Regional Treatment Plant capacity were evaluated in the SEIR.
Flow estimates were recalculated in the SEIR and it was concluded that the General Plan buildout will result in the need for an eventual expansion of the Regional Treatment Plant, which is a potentially significant impact. The SEIR concludes that with the implementation of mitigation measures, the impacts associated with exceeding the Regional Treatment Plant capacity would be reduced to a less than significant level. The proposed project is not population-generating, so would not result in an increased demand for wastewater treatment, or the need for treatment plant expansion.

Water Infrastructure

The General Plan EIR states that future development consistent with the General Plan would require additional domestic water service and will create a need for the expansion of facilities to meet the additional water use demands and fire flow requirements. New wells will need to be constructed or existing wells may need to be made deeper to meet the increased demand for water. The SEIR also evaluated the impacts on General Plan buildout on existing water facilities.

According to the analysis in the SEIR, General Plan buildout would create a need for new water facilities and for the expansion of facilities to meet additional water use demands. To meet the increased demand for water, future development would require new infrastructure such as pumps, transmission lines, and meters. Additionally, new wells would need to be constructed or existing wells may need to be deeper. The proposed project is not population-generating, and would not result in the need for expanded water systems. Water supply and demand for the proposed project are discussed in Section 3.8, Hydrology and Water Quality, and Section 4.0, Cumulative Impacts.

Storm Water Drainage

Implementation of the proposed project would require the construction of new storm water drainage facilities on the project site and connecting to the City's existing storm water collection system. However, the construction of new storm water drainage facilities would not cause significant environmental effects, as outlined in Sections 3.4 Biological Resources and 3.8 Hydrology and Water Quality. Please see these sections for further discussion.

Landfill Capacity

According to the California Department of Resources, Recycling, and Recovery CalRecycle website, the proposed project would generate approximately 240 pounds of solid waste per student per year. With up to 1,000 students the proposed project would result in approximately 240,000 pounds of solid waste per year. The Salinas Valley Solid Waste Authority operates

landfills and transfer stations designed to accommodate the long-term solid waste disposal needs of customers within the City. Solid waste generated at the proposed project would be transferred to the Johnson Canyon landfill, located at 31400 Johnson Canyon Road, outside of the City of Gonzales. According to the CalRecycle website, the landfill currently has capacity until 2040. Additionally, the lifetime of the landfill can be anticipated to increase as more diversion programs and new technologies are applied in the future. Therefore, there is sufficient permitted capacity to accommodate the project's solid-waste disposal needs.

4.0 CUMULATIVE IMPACTS

4.1 CEQA REQUIREMENTS

CEQA Guidelines section 15130 requires a discussion of cumulative impacts when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3), which states, "The project has possible environmental effects that are individually limited but cumulative considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulative considerable. A cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR. When the combined cumulative impacts associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting its conclusion that the cumulative impact is less than significant.

A lead agency may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and therefore, is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable. The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the other identified projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

CEQA requires a cumulative development scenario to consist of either a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or, a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

4.2 CUMULATIVE DEVELOPMENT SCENARIO

The cumulative analysis is based on a summary of projections contained in the General Plan EIR and SEIR. The cumulative analysis therefore encompasses the City of Salinas and expansion areas as identified in the General Plan.

The project site designated as Residential Medium Density, Public/Semi Public, Open Space, and Mixed Use by the General Plan. The project's proposed use of the project site for a middle school is considered an allowable and compatible use for the project site based on the General Plan. Therefore, the proposed project is consistent with the General Plan and the analysis in the General Plan EIR. Cumulative impacts are discussed below.

4.3 CUMULATIVE IMPACTS AND THE PROPOSED PROJECT'S CONTRIBUTION

Aesthetics

The General Plan EIR determined that implementation of the General Plan would result in aesthetics impacts related to the transformation of currently vacant or agricultural areas into urban uses, including increased light and glare. The General Plan EIR states that the City will continue to review development proposals for aesthetic impacts and require mitigation for identified impacts. The General Plan EIR concluded that, as such, future development according to the General Plan will not result in a cumulatively significant aesthetics impact (General Plan EIR, page 7-6).

As discussed in Section 3.1, Aesthetics, the proposed project would result in similar aesthetics impacts. Implementation of Mitigation Measure AES-1 would reduce some aesthetics impacts of the proposed project to less-than-significant level. However, the proposed project would result in a substantial degradation of the existing visual character of the site and would, therefore, result in a significant project-level impact. Furthermore, even though the surrounding area is planned for future development as outlined in the proposed Specific Plan, with the proposed middle school as the initial development in the area, the development of the project would have an elevated visual impact and represents a cumulatively considerable contribution to aesthetics impacts.

Agricultural Resources

The General Plan EIR determined that implementation of the General Plan may ultimately result in the conversion of 3,525 acres designated for agriculture to urban uses. The General Plan EIR concluded even with mitigation measures that conversation of agricultural land associated with buildout of the General Plan would result in a significant, unavoidable, cumulative impact on agricultural resources (General Plan EIR, page 5.9-9).

As discussed in Section 3.2, Agricultural Resources, the proposed project would contribute approximately 18 acres (or 0.05 percent) to this loss of important farmland, representing a significant impact in the conversion of farmland to non-farmland use. Furthermore, even though the surrounding area is planned for future development as outlined in the proposed Specific Plan, with the proposed middle school as the initial development in the area, the development of the project would disrupt agricultural operations on the immediately adjacent land. The proposed project represents a cumulatively considerable contribution to impacts to agricultural resources.

Air Quality

Although air quality in the region is generally considered to be very good, the air basin is considered a nonattainment area due to exceedances of the California Ambient Air Quality Standards for ozone and inhalable particulate matter. The air district adopted the AQMP to address air quality within the region. Implementation of the AQMP will partially reduce the air quality impacts resulting from development within the region. Based on the difference between AMBAG's population growth projections and those expected in the General Plan, AMBAG determined that criteria air emissions attributable to General Plan implementation, including the air emissions from construction of new development, are inconsistent with the AQMP. Inconsistency with the population estimates may lead to increased emissions not accounted for in the AQMP and may conflict with the applicable air quality plan. Inconsistency with the

population estimates used in the AQMP may cause a delay in the attainment of the California ambient air quality standards due to the increased emissions associated with a population projection larger than was used in the emissions inventory for the AQMP. As a result, since AMBAG has determined that the proposed General Plan is inconsistent with the AQMP, an unavoidable, significant cumulative air quality impact may occur.

As discussed in Section 3.3, Air Quality, the proposed project would result in less-thansignificant operational air quality impacts and less than significant construction phase air quality impacts with the application of Mitigation Measure AQ-1. With implementation of Mitigation Measure AQ-1, the proposed project's cumulative contribution to air quality impacts would not be considerable.

Biological Resources

The General Plan EIR stated that implementation of General Plan could result in cumulative impacts to biological resources as a result of direct and indirect effects of construction activities adjacent to sensitive biological resource areas and runoff from urban development. The General Plan EIR concluded that direct and indirect impacts to biological resources associated with development under the General Plan will generally be reduced to a less-than-significant level through compliance with existing regulations and implementation of the General Plan policies. Additionally, for individual discretionary development proposals, surveys will be required to determine on-site resources and appropriate site-specific mitigation measures. The General Plan EIR concluded that, with the implementation of these measures, the biological impacts of implementing the General Plan will result in a less-than-significant cumulative impact to biological resources (General Plan EIR, pages 7-4 and 7-5).

The proposed project would result in similar biological resources impacts. As discussed in Section 3.4, Biological Resources, implementation of Mitigation Measures BIO-1 – BIO-4 would reduce biological resources impacts of the proposed project to less than significant. Therefore, as mitigated, the proposed project would not result in a cumulatively considerable contribution to biological resources impacts.

Cultural Resources

The General Plan EIR determined that most impacts to historic and archaeological resources associated with implementation of the General Plan can be mitigated and reduced to a less-thansignificant level. Mitigation would occur by implementing county and local resource protection policies, and site-specific mitigation measures identified in CEQA documents, that would require the retention of or mitigation for the loss of historic structures or archaeological resources. However, the General Plan EIR concluded that significant unavoidable project-level impacts may occur as a result of the General Plan since nondiscretionary projects will not be required to incorporate mitigation to protect historic and archaeological resources. As a result, if sufficient historic or archaeological resources are lost in the planning area as a result of nondiscretionary projects as allowed under the general plan, implementation of the General Plan may result in an unavoidable, significant, cumulative cultural resources impact due to the loss of regionally important cultural resources (General Plan EIR, page 7-5).

As discussed in Section 3.5, Cultural Resources, the proposed project has similar potential to disturb cultural resources. Implementation of Mitigation Measures CR-1 - CR-3 would reduce cultural resources impacts of the proposed project to less than significant. Therefore, the proposed project, as mitigated, would not result in a cumulatively considerable contribution to cultural resources impacts.

Geology and Soils

The General Plan EIR determined that impacts of related to geologic conditions associated with development under the General Plan could be mitigated to less-than-significant levels by the implementation of mitigation measures identified in the EIR, as well as the implementation of local grading ordinances, standard structural regulations, and public safely policies and programs contained in the County of Monterey General Plan and the general plans of local jurisdictions, including the City of Salinas.

As discussed in Section 3.11, Effects Found Not To Be Significant (Geology and Soils), potential geology and soils impacts of the proposed project would be less than significant. Therefore, the proposed project would not result in a cumulatively considerable contribution to geologic or soils impacts.

Greenhouse Gas Emissions

The SEIR determined that future development projects anticipated to occur during implementation of the General Plan are expected to result in increased GHG emissions due to increased vehicle miles traveled, increased electricity and natural gas consumption, and increased solid waste generation and subsequent disposal into landfills. The SEIR determined that implementation of the General Plan would contribute to the exacerbation of climate change and the significant adverse environmental effects thereof. Furthermore, increased GHG emissions associated with implementation of the General Plan could potentially impede implementation of the State's mandatory requirement under AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. Therefore, the incremental GHG emissions associated with development under the General Plan would cause a cumulatively considerable incremental contribution to the significant cumulative (worldwide) impacts when viewed in connection with

worldwide GHG emissions. By generating increased emissions that contribute to global climate change, development that occurs in accordance with the General Plan would incrementally contribute to the adverse economic, public health, natural resources, and other environmental impacts projected to occur in California and throughout the world as a result of global climate change. Although mitigation measures have been identified that would substantially reduce the incremental GHG emissions associated with the General Plan, the project level impact cannot be reduced to a level less than cumulatively significant. Therefore, the cumulatively considerable incremental contribution to the worldwide increase in GHG emissions represented by development that is anticipated to occur with implementation of the General Plan is considered significant and unavoidable.

As discussed in Section 3.6, Greenhouse Gas Emissions, construction and operation of the proposed project would result in GHG emissions. However, potential impacts from the proposed project would be less than significant. Therefore, the proposed project would not result in a cumulatively considerable contribution to greenhouse gas emissions.

Hazards and Hazardous Materials

The General Plan EIR states that implementation of the General Plan would increase the number of people potentially exposed to public safety risks related to hazardous material, flooding, air transportation, and fires. The General Plan EIR concludes that compliance with City and County public safety policies - as well as enforcement of state, county, and local hazardous material regulations – would reduce significant public safety hazards associated with buildout of the General Plan to a less-than-significant level (General Plan EIR, page 7-4).

As discussed in Section 3.7, Hazards and Hazardous Materials, the proposed project could result in significant safety hazards due to the potential for unknown hazardous materials. However, the proposed project would not result in a cumulatively considerable contribution to hazards or hazardous materials impacts.

Hydrology/Water Quality

The General Plan EIR determined that as development proceeds under the General Plan, the amount of impervious surfaces will increase, adversely affecting surface and ground water quality, and resulting in a decrease in recharge rates. Additional impacts to surface water quality from erosion and sedimentation will occur during grading and construction activity, and issues of seawater intrusion and nitrate contamination will also continue to impact the region's groundwater. The General Plan EIR concluded that cumulative impacts to water resources will be reduced by implementing Best Management Practices in accordance with the National Pollutant Discharge Elimination Storm Water Permit, as well as implementation of other

mitigation measures. Therefore, as the proposed project is in compliance with the General Plan and would result in a less-than-significant impact at a project level, the potential contribution of the project to water quality degradation at a cumulative level would be less than significant.

Additionally, the General Plan EIR concluded that new development would continue to use the region's groundwater as the main water source, and, as a result, due to the continued issue of seawater intrusion and nitrate contamination in the region, a cumulative groundwater supply and quality impact may occur. As a result, implementation of the General Plan will result in a significant cumulative hydrology/water quality impact. Development of the project site to urban uses and the associated water demand was considered in the General Plan EIR and is considered to be a significant, unavoidable cumulative impact to hydrology and water quality.

As discussed in Section 3.8, Hydrology and Water Quality, the proposed project would draw water from groundwater resources. Implementation of Mitigation Measure HYD-2 would reduce the impact of the proposed project at a project-level; however, a potential cumulative impact to groundwater supplies would be significant and unavoidable. It is notable that as the project site currently uses groundwater supplies for agricultural irrigation purposes, the proposed project would not represent new groundwater use for the project site and, as discussed in Section 3.8, Hydrology and Water Quality, the site's conversion from agricultural use would result in less water usage on the project site. However, considering the uncertainty of groundwater resources, the project's cumulative contribution to the depletion of groundwater supplies would be significant and unavoidable.

Land Use and Planning

The General Plan EIR determined that implementation of the General Plan may result in a conflict with adopted land use plans, policies, or regulations of agencies with jurisdiction over the planning area, in particular the County of Monterey. The General Plan EIR concludes that with implementation of mitigation measures, buildout under the General Plan would not result in significant environmental impacts associated with these potential conflicts.

As discussed in Section 3.11, Effects Found Not To Be Significant (Land Use and Planning), development of a new middle school on the project site is consistent with the land uses identified in the General Plan and evaluated in the General Plan EIR. In addition, the proposed project is consistent with the proposed draft Specific Plan. The proposed new middle school and off-site improvements would not physically divide an established community or conflict with any applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. There are no habitat conservation plans or natural community plans applicable to the project site. Therefore, the proposed project would not result in a cumulatively considerable contribution to land use or planning impacts.

Noise

As identified in the General Plan EIR, anticipated regional development will generate short-term noise during the construction process of individual projects. Increased development will also increase traffic volumes and associated noise levels. Significant noise levels already occur along many of the region's transportation corridors. Some existing development is already adversely affected by vehicular noise, and may continue to experience high noise levels whether or not the General Plan is implemented. Implementing local noise ordinances, constructing buildings according to state acoustical standards, and proper land use planning will reduce cumulative impacts to new noise sensitive land uses to a less than significant level. In addition, the General Plan does not propose any land use that would result in a significant increase to the ambient noise level in the region. Existing development may continue to be impacted by the cumulative vehicular traffic along the region's roadways. As a result, buildout of the General Plan may result in an unavoidable, significant, cumulative noise impact to existing development.

The proposed Specific Plan would result in development of the areas surrounding the project site with primarily residential and commercial land uses. Schools are considered to be compatible with residential areas and are included in the proposed Specific Plan. A review of the traffic volumes provided by Kimley-Horn's traffic impact assessment indicate that traffic noise levels on roadways in the vicinity of the project site would be increased by zero to five dB above existing levels under both cumulative 2030 scenarios (with or without the proposed project). These traffic noise increases are primarily a result of traffic increases over time from the development of the area. The proposed project contribution to the cumulative traffic noise increase is calculated to be less than one dB and would not be considered substantial. Construction of the proposed Specific Plan is not anticipated to begin until after the opening of the school in 2018. As a result, construction of the proposed project would not combine with construction noise from other projects in the vicinity. This represents a less than significant cumulative impact and no mitigation is required. Therefore, the project's cumulative contribution to noise impacts would not be considerable.

Population and Housing

As discussed in Section 3.11, Effects Found Not To Be Significant (Population and Housing), the proposed project would have no impacts on population and housing. Therefore, the proposed project would have no cumulatively considerable impacts to population and housing.

Public Services

As discussed in Section 3.11, Effects Found Not To Be Significant (Public Services), the proposed project would have less-than-significant impacts to public services. Therefore, the proposed project would not have cumulatively considerable impacts to public services.

Transportation and Traffic

Cumulative traffic volumes for the proposed project were based on future year traffic projections for the year 2030. For consistency with the most recent travel demand model, the traffic volumes were obtained from the previously prepared Salinas Sphere of Influence Amendment and Annexation Supplemental Traffic Impact Analysis prepared by Fehr & Peers (2007). The resulting cumulative plus project conditions intersection level of service was analyzed by the proposed project's traffic assessment at each study intersection. The results are displayed in Table 20, Cumulative Plus Project Conditions Intersection Level of Service.

			Cumulative Conditions				Cumulative Plus Project Conditions			
#	Intersection	Control Type	AM Peak Delay / LOS		PM Peak Delay / LOS		AM Peak Delay / LOS		PM Peak Delay / LOS	
1	Natividad Road / East Boronda Road	Signal	48.8	D	65.0	Е	49.5	D	67.4	Е
2	Independence Blvd / East Boronda Road	Signal	38.0	D	48.4	D	46.1	D	50.1	D
3	Hemingway Drive / East Boronda Road	Signal	35.1	D	32.6	C	46.3	D	37.9	D
4	Constitution Blvd / East Boronda Road	Signal	31.2	С	36.1	D	32.7	С	38.0	D
5	School Loop Entrance / AJ Street						8.1	A	7.5	A
6	School Loop Exit / AA Street	SSSC					0.1	A	0.1	А
7	School Parking Entrance / K Street						0.1	A	0.1	A
8	School Parking Exit / K Street	SSSC					0.1	A	0.1	Α

 Table 20
 Cumulative Plus Project Conditions Intersection Level of Service

Source: Kimley-Horn 2015

Notes: PM trips are during school PM peak period. SSSC = side-street stop-controlled.

As discussed in Section 3.9, Traffic, and below, the proposed project would add new vehicle trips to the regional roadway system. The traffic impact assessment for the proposed project analyzed resulting cumulative plus project conditions at intersections and the resulting level of service impacts at intersections for each project study intersection. Cumulative conditions are displayed in Figure 15, Cumulative Conditions Intersection Lane Geometry and Peak Hour Volumes, Figure 16, Cumulative Conditions Project Trip Distribution and Assignment, and Figure 17, Cumulative Plus Project Conditions Intersection Turning Movements, included in Section 3.9, Traffic.

As identified in Table 20, Cumulative Plus Project Conditions Intersection Level of Service, intersection #1: Natividad Road / East Boronda Road, would experience a degraded level of service with the addition of the project in the school PM peak hour. The intersection of Natividad Road / East Boronda Road operates at LOS E during the school PM peak hour under Cumulative conditions, with a delay of 65.0 seconds/vehicle. With the addition of the project, this intersection operates at LOS E during the School PM peak hours under Cumulative Plus Project conditions, with a delay of 67.4 seconds/vehicle. Because the intersection is degraded and operates at LOS E, which is worse than the City standard set for intersections of LOS D, this is a significant impact. However, implementation of Mitigation Measure CT-1 below would reduce the project to less-than-significant level and no additional mitigation is required.

Mitigation Measure

CT-1. The Salinas Union High School District shall, in conjunction with the City of Salinas, optimize the coordinated cycle lengths along East Borronda Road to 129 second cycles. The intersection of Natividad Road and East Boronda Road is coordinated with adjacent signals through InSync wiring, as indicated by the City. With implementation of this measure, the intersection will continue to operate at LOS E during the PM peak hour, with delays of 64.5 seconds/vehicle, but with average control delays better than cumulative no project conditions.

The application of Mitigation Measure CT-1 would reduce the potential significant impact to a less-than-significant level. Therefore, the proposed project would not have a cumulatively considerable traffic impact.

SUHSD New Middle School #5 Construction EIR

Cumulative Conditions Intersection Lane Geometry and Peak Hour Volumes Figure 15

Source: Kimley-Horn and Associates, Inc. 2015



-(Z8L) LZL







U

M

E



Assumed Cumulative Conditions Intersection Geometry

201 ²⁰¹

,05E

Cumulative Conditions Intersection Turning Movements



Intersections # 5-8 are Project driveways and are only included in Plus Project Conditions.

4.0 CUMULATIVE IMPACTS

This side intentionally left blank.

SUHSD New Middle School #5 Construction EIR

Cumulative Conditions Project Trip Distribution and Assignment Figure 16

U

M

E

Source: Kimley-Horn and Associates, Inc. 2015







*Note: The Cumulative Conditions distribution remains the same but the Project trip assignment changes due to buildout of the Cumulative roadway network. This is reflected in the trip distribution arrows to the right.



4.0 CUMULATIVE IMPACTS

This side intentionally left blank.

SUHSD New Middle School #5 Construction EIR

Cumulative Plus Project Conditions Intersection Turning Movements Figure 17

Source: Kimley-Horn and Associates, Inc. 2015







U

M

E

4.0 CUMULATIVE IMPACTS

This side intentionally left blank.

Utilities and Service Systems

As discussed in Section 3.11, Effects Found Not To Be Significant, implementation of the proposed project would not have significant impacts on wastewater infrastructure, water supply infrastructure, storm water drainage facilities, or landfill capacity. The incremental increases for these infrastructure and service system areas for the proposed project would not be significant and would, therefore, not have cumulatively considerable impacts.

As identified in Section 3.8, Hydrology and Water Quality, and in Section 3.11, Effects Found Not To Be Significant, the proposed project's reliance on groundwater supplies which have been determined to be potentially insufficient by the General Plan EIR for all buildout of the City as envisioned by the General Plan, represents a significant impact. As this impact concerns groundwater supply, the significant impact is identified in Section 3.8, Hydrology and Water Quality, and the potential considerable cumulative impact is identified within this section in the Hydrology and Water Quality cumulative impact discussion.

4.0 CUMULATIVE IMPACTS

This side intentionally left blank.

5.0 OTHER CEQA CONSIDERATIONS

This section of the EIR discusses additional environmental implications of the proposed project as required by CEQA. The topics discussed in this section include growth-inducing impacts, significant unavoidable environmental effects, and energy demand.

5.1 GROWTH-INDUCING IMPACTS

CEQA Requirements

Public Resources Code Section 21100(b) (5) and CEQA Guidelines Section 15126.2(d) require a discussion in the EIR of the growth-inducing impacts of a proposed project. The EIR must discuss the ways in which the project may directly or indirectly foster economic or population growth or additional housing in the surrounding environment, remove obstacles to growth, tax existing community services facilities, or encourage or facilitate other activities that cause significant environmental effects, either individually or cumulatively. Direct growth-inducing impacts result when the development associated with a project directly induces population growth or the construction of other development within the same geographic area. The analysis of potential growth-inducing impacts includes a determination of whether a project would remove physical obstacles to population growth. This often occurs with the extension of infrastructure facilities that can provide services to new development. In addition to direct growth-inducing impacts, an EIR must also discuss growth-inducing effects that will result indirectly from the project, by serving as catalysts for future unrelated development in an area. Development of public institutions and the introduction of employment opportunities within the same geographic area are examples of projects that may result in growth-inducing impacts.

An EIR's discussion of growth-inducing effects should not assume that growth is necessarily beneficial, detrimental, or of little significance to the environment. An EIR is required to discuss the ways in which the proposed project could foster growth.

Standards of Significance

CEQA Guidelines appendix G indicates that a project may have significant growth-inducing impacts if the project would induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).

Growth-Inducing Impact Analysis

The approval of the proposed project would not represent a new commitment of land for urban development. Urban development of the project site has been envisioned by the City for a considerable time, with the city's adoption of the General Plan (City of Salinas, 2002). The project site and the surrounding area is located within the City of Salinas' Future Growth Area, as designated by the General Plan, and is currently zoned by the City as New Urbanism Interim.

Figure 4, General Plan Land Use Map, shows the General Plan land use designations of the project site and surrounding area, and also shows the proximity of the site to the City limits and Sphere of Influence. The extent of the Future Growth Area is shown in Figure 5, Salinas Future Growth Area.

The project site is located within the proposed Specific Plan. The site is identified within the proposed Specific Plan as "7-8 Middle School, 18 Net Acres" and is zoned as Public Semi-Public. The proposed Specific Plan currently indicates that land uses to the west of the project site would be zoned Village Center, allowing for multi-family and cottage-style residential, retail, and office land uses. Areas to the south, north, and east are zoned for neighborhood uses. Figure 6, Proposed Central Area Specific Plan, shows the project site location within the proposed Specific Plan. The proposed Specific Plan proposes to locate a new library to the southwest of the project site, and parkland is to be located across the street from the northeastern corner of the project site. The proposed Specific Plan includes increased circulation infrastructure, extension of existing roadways, and upgrades to existing roadways. Although the proposed Specific Plan is still in draft form and has not been approved by the City, in all likelihood the proposed Specific Plan or some derivation of it will be approved at some point by the City in furtherance of the General Plan. Therefore, it is reasonable to assume future development on the project site with a middle school based on the City's General Plan, General Plan EIR, and the proposed Specific Plan.

Therefore, approval of the project would not represent the first decision to plan for extending urban development into this non-urbanized area. Development of the project site represents a logical expansion of City growth consistent with the Future Growth Area identified in the General Plan. Development of the site may be a precedent for future growth in the undeveloped areas surrounding the site. However, these areas are also in the Future Growth Area and within the Specific Plan area and have been identified for future development. Development of the site would not induce growth in areas not already anticipated for development. Furthermore, the proposed project would not induce substantial population growth by proposing new homes on the project site. Additionally, the extension of roads and utility infrastructure to the project site have already been planned for the project site area and are anticipated to proceed even without implementation of the proposed project as anticipated future buildout of the area occurs.

5.2 SIGNIFICANT UNAVOIDABLE IMPACTS

CEQA Requirements

A significant adverse unavoidable environmental impact is a significant adverse impact that cannot be reduced to a less-than-significant level through the implementation of mitigation measures. CEQA Guidelines section 15093 requires that a lead agency make findings of overriding considerations for unavoidable significant adverse environmental impacts before approving a project.

CEQA Guidelines section 15093(a) requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable." CEQA Guidelines section 15093(b) states that when the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

Impact Analysis

Based on the environmental analysis provided in Chapter 3.0 and 6.0 of this EIR, most of the potential impacts associated with the proposed project can be avoided or reduced to a level of insignificance through the imposition of mitigation measures. However, the project would result in significant unavoidable impacts to aesthetics, agricultural resources, and cumulative groundwater supply, as summarized below.

Aesthetics

As identified in Section 3.1, Aesthetics, development of a new middle school on the project site would result in the introduction of a new urban use to an area that is currently predominantly agricultural. A middle school constructed on the project site would not be out of context with the planned uses for the vicinity, as identified in the General Plan or the proposed Specific Plan. However, at this time, the project site and the surrounding area are undeveloped and the construction of a middle school on the site, separate and isolated from existing development, would still substantially change the visual character of the site from agricultural uses to urban. Potential impacts would be significant and unavoidable and there is no feasible mitigation available that would reduce this impact.

Agricultural Resources

As described in Section 3.2, Agricultural Resources, the 18-acre project site is comprised entirely of Prime Farmland and Farmland of Statewide Importance. The proposed project would result in the conversion of the entire site, and the connecting street corridor, to an urban use. The proposed project would contribute to the significant impacts identified in the General Plan EIR. Regardless, with or without implementation and buildout of the General Plan within and adjacent to the project site within the planned City Future Growth Area, the proposed project would result in conversion of the site from agricultural uses to a school site. This would result in a direct adverse environmental impact to agricultural resources due to the loss of Prime Farmland. There is no feasible mitigation that may be implemented to reduce this significant impact to a less-than-significant level pursuant to CEQA. Therefore, this impact is considered significant and unavoidable.

Groundwater Supply

As identified in Section 3.8, Hydrology and Water Quality, the General Plan SEIR concludes that development consistent with General Plan buildout would result in increased demand for water and may result in a significant impact to the supply and quality of groundwater in the Salinas Valley Groundwater Basin. Even with the implementation of mitigation measures, the SEIR concludes that potential impacts will remain significant and unavoidable (SEIR, page 5.5-6). Although the proposed project would use less water than the existing agricultural use, and while implementation of Mitigation Measure HYD-2 would further reduce water use associated with the proposed project, in accordance with Executive Order B-29-15 and the Water Conservation Act of 2009, due to the uncertainly of long-term groundwater supply for the City of Salinas, the increase in groundwater demand would remain a significant cumulative impact. Refer to Section 4.0 Cumulative Impacts.

5.3 ENERGY DEMAND

State CEQA Guidelines appendix F describes the types of information and analyses related to energy conservation to be included in an EIR. Energy conservation is described in terms of decreased per capita energy consumption, decreased reliance on natural gas and oil, and increased reliance on renewable energy sources. To assure that energy implications are considered in project decisions, EIRs must include a discussion of the potentially significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

Energy production and usage results in environmental impacts including depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emission of pollutants during both production and consumption phases. Energy usage is typically quantified using the British Thermal Unit (BTU). The BTU is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit. As points of reference, the approximate amount of energy contained in a gallon of gasoline, a 100 cubic feet (one therm) of natural gas, and a kilowatt hour (kWhr) of electricity are 123,000 BTUs, 100,000 BTUs, and 3,400 BTUs, respectively.

PG&E, one of the five largest utilities in the state, is the purveyor of electricity and natural gas in the City. Through PG&E, the City receives electricity from power generating facilities located at various locations within the state. The state's electric grid also has interties to other western states, so some electricity used within California is generated outside the state. Electrical energy is generated by a number of means, including thermal power plants using natural gas, coal, fuel oil, and/or used tires as fuel; wind turbines; hydroelectric facilities; biomass plants; and large-and small-scale solar installations. Natural gas used in California originates from basins in California, other western states, and Canada. According to the California Energy Commission's Energy Almanac (California Energy Commission, 2014), California imports 90 percent of its natural gas from outside the state.

Population growth is a key driver for increasing residential and commercial energy demands and for water pumping and other energy-intensive services. The City's population and energy demand will continue to grow. In order to minimize the need for additional electricity generation facilities, both the state and regional energy purveyors have focused investments on energy conservation and efficiency over the past decades. PG&E has been involved in developing renewable energy projects, such as photovoltaic solar power, as a way to meet increasing energy demands within the state's Renewable Portfolio Standard.

Regulatory Setting

Energy conservation is embodied in many federal, state, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the EnergyStar[™] program) and transportation (e.g., vehicle fuel efficiency standards). At the state level, Title 24 of the California Administrative Code sets energy standards for buildings, rebates/tax credits are provided for installation of renewable energy systems, and the Flex Your Power program promotes conservation in multiple areas.

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. The Federal Energy Regulatory Commission reviews proposals to build liquefied natural gas terminals and interstate natural gas pipelines; it also licenses hydropower projects. Licensing of hydroelectric under the authority of Federal Energy Regulatory Commission includes input from state and federal energy, environmental protection, fish and wildlife, and water quality agencies.

National Energy Policy

The National Energy Policy, established in 2001 by the National Energy Policy Development Group, is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future (National Energy Policy Development Group, 2001). Key issues addressed by the energy policy are energy conservation, repair, and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

California Energy Commission

The California Energy Commission is California's primary energy policy and energy planning agency. Created by the California Legislature in 1974, the California Energy Commission has five major responsibilities: 1) forecasting future energy needs and keeping historical energy data; 2) licensing thermal power plants 50 megawatts or larger; 3) promoting energy efficiency through appliance and building standards; 4) developing energy technologies and supporting renewable energy; and 5) planning for and directing state response to energy emergencies. Under the requirements of the California Public Resources Code, the California Energy Commission, in conjunction with the Department of Commerce's Division of Oil, Gas, and Geothermal Resources, is required to assess electricity and natural gas resources on an annual basis or as necessary. The Systems Assessment and Facilities Siting Division of the California Energy Commission to ensure that needed energy facilities are authorized in an expeditious, safe, and environmentally acceptable manner.

California Public Utilities Commission

The California Public Utilities Commission is a state agency created by constitutional amendment to regulate privately owned telecommunications, electric, natural gas, water, railroad, rail transit, passenger transportation, and in-state moving companies. The California Public Utilities Commission is responsible for assuring California utility customers have safe, reliable utility services at reasonable rates while protecting utility customers from fraud. The California Public Utilities Commission regulates the planning and approval for the physical construction of electric generation, transmission, or distribution facilities; and local distribution pipelines of natural gas (California Public Utilities Commission Decision 95-08-038).

California 2008 Energy Action Plan Update

The state adopted the initial Energy Action Plan in 2003, followed by the Energy Action Plan II in 2005. The current plan, the California 2008 Energy Action Plan Update, is California's principal energy planning and policy document. The updated document examines the state's ongoing actions in the context of global climate change, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. The California 2008 Energy Action Plan Update establishes energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods) as the firstpriority actions to address California's increasing energy demands. Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy demand and transmission capacity needs, clean and efficient fossilfired generation is supported. The California 2008 Energy Action Plan Update examines policy changes in the areas of energy efficiency, demand response, renewable energy, electricity reliability and infrastructure, electricity market structure, natural gas supply and infrastructure, research and development, and climate change.

California Building Codes

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were first established in 1978 to reduce California's energy consumption. The standards were most recently updated in January 2013. Energy efficient buildings require less electricity, natural gas, and other fuels, the use of which creates GHG emissions.

CalGreen, which requires all new buildings in the state to be more energy efficient and environmentally responsible, took effect in January 2011 and was most recently updated in January 2013. These comprehensive regulations are intended to achieve major reductions in greenhouse gas emissions, energy consumption, and water use.

Energy Efficiency Act of 2006 (AB 2021)

This bill encourages all investor-owned and municipal utilities to aggressively invest in all achievable, cost-effective energy efficiency programs in their service territories. The results of this bill are expected to reduce forecasted electricity demand by 10 percent over 10 years from 2006 through 2016, offsetting the projected need to build 11 new major power plants.

Impact Analysis

In accordance with CEQA Guidelines appendix F, this analysis considers impacts to be significant if implementation of a proposed project would directly or indirectly result in inefficient, wasteful, and unnecessary consumption of energy. The three primary sources of energy consumption from the proposed project would be fuel use in vehicles (including school buses) traveling to and from the middle school, on-site uses of natural gas, and on-site uses of electricity in buildings and other ancillary uses such as lighting. Energy demand from these sources at buildout of the proposed project was modeled in CalEEMod. Unmitigated CalEEMod results are contained in Appendix D.

Transportation Fuel Use

Table 4.2, Trip Summary, of the unmitigated annual CalEEMod results (Appendix D) shows that at buildout, vehicles traveling to and from the middle school would have an average daily trip rate of 1,634 trips to and from the project site. This total is a composite based on total weekday, Saturday, and Sunday vehicle trips. Based on the analysis of traffic generation conducted in the transportation impact analysis, annual weekday traffic volume (1,296 trips) would be lower than weekday trip volume estimated in CalEEMod (1,634 trips). Trip generation can be used as a general proxy for transportation fuel use. Regardless of the estimated trip generation rate considered, the trip generation rate for the proposed project would not represent a substantial increase in trip generated trips associated with the project would not be new vehicle trips, as existing students in the school district would be re-directed to the new middle school instead of other existing school district schools. Therefore, associated transportation fuel use would not be substantial.

Natural Gas Use

Energy usage is typically quantified using the BTU. The BTU is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit. As points of reference, the approximate amount of energy contained in a gallon of gasoline, 100 cubic feet (one therm) of natural gas, and a kilowatt hour of electricity are 123,000 BTUs, 100,000 BTUs, and 3,400 BTUs, respectively.

Table 5.2 Energy by Land Use – Natural Gas, in the CalEEMod results shows that at buildout, future uses within the site would demand approximately the equivalent of 2,280,000 BTU (22.8 therms) of energy from natural gas use per year from space heating and other internal building uses. One therm is equivalent to 100,000 BTU. According to Energy Consumption Data Management System information maintained by the California Energy Commission, in 2014, total natural gas consumption in Monterey County was approximately 100,000,000 therms (http://www.ecdms.energy.ca.gov/gasbycounty.aspx). The project consumption at buildout would represent less than 0.01 percent of total current County consumption.

Electricity

Table 5.3, Energy by Land Use - Electricity, in the CalEEMod results shows that at buildout, future uses within the site would demand approximately 751,369 kWh of electricity. According to Energy Consumption Data Management System information maintained by the California Energy Commission, in 2014, total electricity consumption in Monterey County was 261,500,000 kWh (http://www.ecdms.energy.ca.gov/elecbycounty.aspx). The project electricity consumption at buildout would represent less than 0.01 percent of total current County consumption.

Project Energy Reduction

Reduction of Energy Use - Regulatory Requirements

As described in the Regulatory Setting above, a number of federal and particularly state regulatory programs are being implemented to improve the efficiency of transportation fuel, natural gas, and electricity use. New development at the project site must comply with the regulations, many of which are beyond the implementation control of future project developers. In the building energy use sector, implementation of CalGreen and Title 24 building standards will reduce natural gas and electricity consumption.

Applicant Proposed Measures and Mitigation Measures that Reduce Energy Consumption

The project applicant has proposed that several measures with energy reduction benefits be included in the proposed project. These are identified in Section 2, Project Description and include:

- Buildings would employ LED lighting systems (interior and exterior) with Title 24 designated lighting controls.
- Buildings would use energy-efficient HVAC systems and site-networked controls along with programmable thermostat controls.
- Areas that require appliances would make use of Energy Star versions or equivalent.
- Emphasis would be given to natural methods of daylighting and ventilations in buildings on the site. Window placement would be prioritized along the axes most conducive to passive methods (solar gain, prevailing winds, etc.).

Conclusion

With required conformance to applicable energy conservation/efficiency regulations and standards and implementation of project specific project design measures that reduce energy consumption, the proposed project would not result directly or indirectly result in inefficient, wasteful, and unnecessary consumption of energy.

5.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Public Resources Code Section 21100(b)(2)(B) requires an EIR to include a detailed statement setting forth any significant effects on the environment that would be irreversible if a proposed project is implemented. Examples of irreversible environmental changes, as set forth in CEQA Guidelines Section 15126.2(c), include the following:

- The proposed project would involve a large commitment of nonrenewable resources such that removal or nonuse thereafter is unlikely;
- The primary and secondary impacts of a proposed project would generally commit future generations to similar uses (e.g., a highway providing access to a previously inaccessible area); or

• The proposed project involves uses in which irreversible damage could result from any potential environmental accidents associated with the proposed project.

Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Analysis

Future development consistent with the project's site plans would include the consumption of non-renewable building materials and energy resources during the construction phase, as well as the ongoing consumption of energy for lighting, air conditioning, space and water heating, and travel to and from the middle school during the life of the project. However, the consumption of such resources is typical of this type of development and would and would not result in an irreversible commitment of natural resources for construction or operation.

Future development consistent with the project's site plans would permanently alter the rural visual character of the project site by replacing the natural landscape with urban development and would commit the use of existing agricultural lands to non-agricultural uses. Once developed, agricultural uses would not return to the site in the foreseeable future. The construction of the proposed use and the project infrastructure would also represent permanent changes to the site.

The proposed project, as a typical educational facility development, does not involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

5.0 OTHER CEQA CONSIDERATIONS

This side intentionally left blank.

6.0 Alternatives

6.1 CEQA REQUIREMENTS

CEQA Guidelines section 15126.6(a) requires a description of reasonable alternatives to the proposed project, or to the location of the project, which could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. It also requires an evaluation of the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project, but must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. CEQA Guidelines section 15126.6(b) further requires that the discussion of alternatives focus on those alternatives capable of eliminating any significant adverse environmental impacts or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly. CEQA Guidelines section 15126.6 (e) stipulates that a no project alternative be evaluated along with its impacts.

CEQA Guidelines section 15126.6(d) requires the EIR to present enough information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. CEQA Guidelines section 15126.6(e) requires the identification of an environmentally superior alternative. If the "No Project" alternative is the environmentally superior alternative, then the environmentally superior alternative amongst the remaining alternatives must be identified.

6.2 ALTERNATIVES CONSIDERED

The following alternatives to the project are considered:

- Alternative 1: No project/No Development on Site;
- Alternative 2: No project/No New Middle School; and
- Alternative 3: Alternative Site.

Each of these alternatives is described below, followed by an analysis of how each alternative may reduce impacts associated with the proposed project.

CEQA Guidelines section 15126.6 (e) requires the "No Project" alternative be evaluated along with its impacts. The "No Project" alternative analysis must discuss the existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. For the proposed project, two "No Project" alternatives are considered: a No Project/No Development on Site alternative and a No Project/No New Middle School in District alternative.

Alternative I: No Project/No Development on Site

Alternative Description

The "No Project/No Development on Site" alternative would result in no development of a new middle school on the project site. Based on the school district's need for the construction of a new middle school to accommodate current overcrowding in schools and anticipated future population growth in the school district's boundary, this alternative reasonably assumes that if the proposed new middle school were not to be developed on the project site, a new middle school would be developed at another location within the school district's boundary. Refer to Alternative 3 for specific analysis of development of a new middle school at another location.

Alternative Effects

The environmental effects of the No Project/No Development on Site alternative with reference to the proposed project are summarized by topic area below.

Aesthetics (similar). While this alternative would not result in the site specific significant visual character change as the proposed project, it can be reasonably assumed that a new middle school would be developed on another site within the school district's boundary. It is also reasonable to assume that a middle school development on a different site would have similar aesthetics

impacts as the proposed project, in particular a significant impact to the visual character of an alternative site. As with the proposed project, due to the availability of sites and in order to meet the school district's needs to serve its students with geographically distributed schools, an alternative location for a middle school within the school district's boundary would more than likely occur within the Future Growth Area, which is predominately undeveloped land currently in agricultural production. Therefore, this alternative would have similar visual character change impacts as the proposed project.

Agricultural Resources (similar). As with potential impacts to a site's visual character, this alternative would most likely result in a similar loss of agricultural land as the proposed project. While this alternative would avoid the site-specific impact of loss of agricultural lands, an alternative location for a middle school within the school district's boundary would more than likely occur within the Future Growth Area, which is predominately undeveloped land currently in agricultural production. Therefore, this alternative would have similar loss of agricultural land impacts as the proposed project.

Air Quality (similar). This alternative could be reasonably expected to result in similar air quality impacts, both construction and operational level, as the proposed project. Construction and operation of a similar-sized middle school at a different location from the proposed project site would result in equivalent air quality impacts from construction activities on a site, ground clearance and building construction, and from operational activities including vehicle travel to and from a site and emissions related to school operations. Therefore, this alternative would result in similar air quality impacts as the proposed project.

Biological Resources (similar). Potential impacts to biological resources associated with this alternative could be reasonably expected to be similar to the proposed project. As with the proposed project, an alternative location for a middle school within the school district's boundary would more than likely occur within the Future Growth Area, which is predominately undeveloped land currently in agricultural production and would have similar potential impacts to biological resources as the proposed project. However, as the proposed project has a potential site-specific impact to biological resources, development of a new middle school at an alternative location may conceivably avoid such an impact, although it could also result in greater biological impacts, depending on the particular site. Potential impacts to biological resources for this alternative are considered similar, yet could be less than or greater than the proposed project.

Cultural Resources (similar). Regardless of the specific alternative site chosen for a middle school, this alternative has the potential to result in impacts to unknown buried cultural resources, similar to the proposed project. Therefore, the potential to unearth unknown cultural resources would be similar for this alternative as for the proposed project.

Geology and Soils (similar). This alternative would have similar potential geologic and soils impacts as the proposed project. Geologic and soil conditions could reasonably be expected to be

similar for an alternative project site as for the proposed project site as an alternative site would more than likely be located within the Future Growth Area in the school district's boundary. Therefore, potential geologic and soils impacts would be similar for this alternative as for the proposed project.

Greenhouse Gas Emissions (similar). This alternative assumes a roughly identical new middle school to the proposed project would be constructed and operated at a different location than the proposed project site. Therefore, as construction and operational activities would be roughly equivalent for this alternative compared to the proposed project, greenhouse gas emissions from this alternative would be similar in nature.

Hazards and Hazardous Materials (similar). The proposed project as well as this alternative, has the potential to result in the release of hazardous materials impacts to disturbance of undocumented buried storage containers or contaminated soils during construction. Consequently, the proposed project and this alternative have the same potential for impact. Thus, the impacts would be similar.

Hydrology and Water Quality (similar). Impervious surfaces and rates and volumes of peak runoff associated with the proposed project would be similar for this alternative. As for the proposed project, development would be subject to compliance with BMPs and standards established for compliance with non-point discharge emissions for storm water and adequate drainage facilities. Therefore, it is assumed that like the proposed project, storm water detention facilities would need to be constructed under this alternative. A similar sized middle school in the school district's boundary would have a similar demand for groundwater, thereby representing a significant impact based on the uncertainty of groundwater supplies. Therefore, the hydrology and water quality impacts of this alternative would be similar to the proposed project.

Land Use & Planning (similar/greater). An alternative location for a new middle school within the school district would more than likely be located within the Future Growth Area, similar to the proposed project. Therefore, at a macro-level, this alternative would have similar land use and planning considerations as the proposed project. However, as the proposed project site is identified within a long range planning document, albeit one still in draft form, as the site for future school development, potential impacts associated with land use and planning conflicts could be increased with a different location. Therefore, while potential land use and planning conflicts would be roughly similar between the proposed project and this alternative, this alternative has a greater potential to represent land use and planning conflicts.

Noise (similar/greater). Noise generation associated with this alternative would be similar to the proposed project as this alternative would establish a similar-sized middle school in a different location than the proposed project site. However, short-term noise impacts from this alternative may be increased as compared to the proposed project as the project site is currently
located approximately 0.4 miles from the nearest residential neighborhood and an alternative location may be located in closer proximity to existing residences, and thus contribute an increased amount of noise as a result of construction and operational activities to existing ambient noise levels. An alternative site farther from sensitive receptors would not reduce impacts, as the separation of the project site is already great enough to prevent noise impacts. Therefore, this alternative would most likely have greater noise impacts than the proposed project.

Public Services (similar). The increased demand for public services (fire, police, emergency response) would be similar for this alternative as for the proposed project. Locating a similar-sized middle school within the school district's boundary would have similar increased demand for public service providers as for the proposed project. However, depending on the specific alternative location chosen, some services may not be readily provided, and some new infrastructure could be required to serve the site.

Traffic and Circulation (similar). Potential impacts to traffic and circulation from this alternative would more than likely be similar to those of the proposed project. While generally potential traffic and circulation impacts are site-specific, an alternative location for a new middle school in the school district's boundary would most likely also be located in the City's Future Growth Area and would add traffic to portions of the same road network, and have similar traffic and circulation impacts as the proposed project.

Utilities (similar). The increased demand for utilities (water, wastewater, solid waste, electricity & natural gas) would be similar for this alternative as for the proposed project. Locating a similar-sized middle school within the school district's boundary would have similar increased demand for utility providers as for the proposed project.

Comparison of No Project/No Development on Site Alternative with Proposed Project Objectives

The following objectives, as prepared by the applicant, outline the underlying purpose of the proposed project. The objectives of the proposed project are to:

- Provide students with a rigorous and comprehensive academic program which will prepare them in becoming responsible and independent citizens of a global society;
- Provide a high-quality transition of students from the more structured elementary school to the middle school environment and then on to the high school environment to ensure the student's positive emotional, mental and physical development focusing on:

- Academic achievement,
- Providing a variety of activities to explore greater possibilities for independent thinking,
- Exposing students to a more global sense of community to include cultural, academic and interest diversity,
- Providing a safe and orderly environment to foster a personal sense of community ownership and responsibility, and
- Providing facilities that encourage and support the learning environment;
- Provide design and construction methodology that includes a high degree of flexibility to accommodate program changes in the future and is organized in a manner which ensures a sense of community and a personalized education experience for each student;
- Eliminate portable classrooms that have become too old to maintain; reduce student densities on school sites which exceed California Department of Education recommendations;
- Free up classroom space that can be used for special programs;
- Take maximum advantage of State school facility funds; and
- Construct one new middle school (middle school #5) with a capacity of 1,000 students.

The No Project/No Development on the Site alternative would be consistent with the proposed project's objectives, in that a new middle school would be constructed in another suitable location within the school district. However, based on the fact that the proposed project has already undergone a considerable amount of upfront planning, the proposed project site has already been designated and planned for future school development, and that an alternative location for a new middle school in the school district's boundary has not been identified, this alternative would not be entirely consistent with the objective to construct a new middle school. The delay which would be associated with the identification of a new location for a new middle school would not only delay the construction of a new middle school, but would also delay the elimination of portable classrooms within the school district's schools.

Alternative 2: No Project/No New Middle School

Alternative Description

The "No Project/No New Middle School" alternative would result in no development on the project site and no new middle school established at another location within the school district's boundary. Under this alternative, the school district would continue to accommodate existing and future students within existing school district facilities.

Aesthetics (less). This alternative would result in no aesthetic impacts as there would no new development on the project site or at an alternative location within the school district's boundary. Instead, current and existing students would continue to attend existing school district facilities. There would be ongoing aesthetic degradation at existing schools, which would continue to house aging portable buildings.

Agricultural Resources (less). This alternative would result in no impacts to agricultural resources as there would no new development on the project site or at an alternative location within the school district's boundary. Instead, current and existing students would continue to attend existing school district facilities.

Air Quality (similar/less). As there would be no construction and operation of a new middle school under this alternative, there would be less overall air quality emissions. However, based on existing and future students continuing to attend existing school district school facilities, air quality emissions would continue to be associated with this alternative as they would be for the proposed project. Due to overcrowding at existing schools, there could be associated localized traffic congestion, which could result in elevated carbon monoxide and criteria air emissions, although there is no evidence this would be at a level of significance.

Biological Resources (less). This alternative would result in no impacts to biological resources as there would no new development on the project site or at an alternative location within the school district's boundary. Instead, current and existing students would continue to attend existing school district facilities.

Cultural Resources (less). This alternative would result in no impacts to cultural resources as there would no new development on the project site or at an alternative location within the school district's boundary. Instead, current and existing students would continue to attend existing school district facilities.

Geology and Soils (less). With no construction and operation of a new middle school under this alternative, there would be no potential geologic or soils impacts.

Greenhouse Gas Emissions (similar/less). As there would no construction and operation of a new middle school under this alternative, there would be less overall greenhouse gas emissions. However, based on existing and future students continuing to attend existing school district facilities, operational greenhouse gas emissions would continue to be associated with this alternative as they would be for the proposed project.

Hazards and Hazardous Materials (less). With no construction and operation of a new middle school under this alternative, there would be no potential hazards or hazardous materials impacts.

Hydrology and Water Quality (similar/less). With no construction and operation of a new middle school under this alternative, there would be no new potential hydrology or water quality impacts. However, projected increases in student populations within the school district boundaries will continue to increase demand for groundwater supplies, thereby representing potential impacts to groundwater supplies.

Land Use and Planning (less). There would be no impact to land use planning associated with this alternative.

Noise (less). As this alternative would result in no new middle school in a currently undeveloped location, there would be no new noise generation under this alternative.

Public Services (less). As this alternative would result in no new middle school in a currently undeveloped location, there would be no new demand for public services under this alternative.

Transportation and Traffic (similar). No new transportation or traffic impacts would be associated with this alternative as no new middle school would be constructed and operated. However, existing schools in the school district would continue to be overcrowded and, as overcrowding would most likely continue in the future, there is a likelihood for traffic and circulation in the vicinity of existing school district facilities to be adversely impacted. Therefore, this alternative would have the potential for similar, but different distributed traffic and circulation impacts than the propose project.

Utilities (less). As this alternative would result in no new middle school in a currently undeveloped location, there would be no new demand for utilities under this alternative.

Comparison of No Project/No New Middle School Alternative with Proposed Project Objectives

The following objectives, as prepared by the applicant, outline the underlying purpose of the proposed project. The objectives of the proposed project are to:

- Provide students with a rigorous and comprehensive academic program which will prepare them in becoming responsible and independent citizens of a global society;
- Provide a high-quality transition of students from the more structured elementary school to the middle school environment and then on to the high school environment to ensure the student's positive emotional, mental and physical development focusing on:
 - Academic achievement;
 - Providing a variety of activities to explore greater possibilities for independent thinking;
 - Exposing students to a more global sense of community to include cultural, academic and interest diversity;
 - Providing a safe and orderly environment to foster a personal sense of community ownership and responsibility; and
 - Providing facilities that encourage and support the learning environment.
- Provide design and construction methodology that includes a high degree of flexibility to accommodate program changes in the future and is organized in a manner which ensures a sense of community and a personalized education experience for each student;
- Eliminate portable classrooms that have become too old to maintain; reduce student densities on school sites which exceed California Department of Education recommendations;
- Free up classroom space that can be used for special programs;
- Take maximum advantage of State school facility funds; and
- Construct one new middle school (middle school #5) with a capacity of 1,000 students.

The No Project/No New Middle School alternative would be partially consistent with the proposed project's objectives. With no new middle school developed within the school district's system, the objectives to eliminate portable classrooms, free up classroom space, take maximum advantage of State school facility funds, and to construct a new middle school would not be met. Furthermore, with continued overcrowding in its schools directly attributable to not developing a new middle school, maintaining the level of academic achievement and facilitation of student success identified in the objectives may be more difficult to achieve.

Alternative 3: Alternative Site

Alternative Description

The "Alternative Site" alternative would construct and operate a new middle school at an alternative location other than the proposed project site. As the General Plan identified a potential future location for a middle school at the northeast corner of the intersection of East Boronda Road and Natividad Road (about one-half mile to the east), this is the location considered by this alternative. This alternative considers that the same size of school would be developed on the alternative site. The alternative site location is displayed in Figure 18, Alternative Site Location.

Alternative Effects

The environmental effects of the Alternative Site alternative with reference to the proposed project are summarized by topic area below.

Aesthetics (similar). As with the proposed project, this alternative would result in the permeant change in visual character of a site currently undeveloped and in agricultural production. While the visual character change of the alternative site may be considered less than the proposed project due to the site's closer proximity to existing development, the significant impact of a visual character change for the site would remain. Furthermore, the proposed project site is located within an area planned for future development. Mitigation to reduce potential impacts due to introduced lighting on the project site would apply to this alternative as for the proposed project. Therefore, this alternative would have similar visual character change impacts as the proposed project.

Agricultural Resources (similar). This alternative would have less of an impact on adjacent agricultural operations on a short-term basis based on the site's location at an existing paved road intersection (thus not requiring the additional access street, and disrupting less adjacent farmland). However, as the proposed project is located within an area planned for future development, on a long-term basis the project and alternative would have similar impacts on adjacent agricultural operations. Therefore, this alternative would have similar loss of agricultural land impacts as the proposed project.

Air Quality (similar/greater). This alternative would result in similar air quality impacts, both construction and operational level, as the proposed project. However, as the alternative site location would be located in closer proximity to sensitive receptors, potential air quality impacts, primarily during the construction phase, would result in increased potential impacts. However, operation of a similar-sized middle school at the alternative location from the proposed project site would result in equivalent air quality impacts from construction activities on a site, ground



6.0 ALTERNATIVES

This side intentionally left blank.

clearance and building construction, and from operational activities, vehicle travel to and from a site and emissions related to school operations. Therefore, this alternative would result in similar air quality impacts as the proposed project.

Biological Resources (similar/less). Potential impacts to biological resources associated with this alternative would be expected to be similar to the proposed project. As with the proposed project, the alternative location is predominately undeveloped land currently in agricultural production and would have similar potential impacts to biological resources as the proposed project. However, as the proposed project has the potential for site-specific impacts to biological resources due to greater proximity to natural drainage, development of a new middle school at an alternative location may conceivably avoid such an impact. Therefore, overall, potential impacts to biological resources for this alternative are considered similar, yet less than the proposed project.

Cultural Resources (similar). This alternative has the potential to result in impacts to unknown buried cultural resources, similar to the proposed project. As with the proposed project, the alternative location would be located within the Future Growth Area, which is predominately undeveloped land. Therefore, the potential to unearth unknown cultural resources would be similar for this alternative as for the proposed project.

Geology and Soils (similar). This alternative would have similar potential geologic and soils impacts as the proposed project. Geologic and soil conditions could reasonably be expected to be similar for the alternative project site, which is one-half mile distant from the project site, as for the project site. Therefore, potential geologic and soils impacts would be similar for this alternative as for the proposed project.

Greenhouse Gas Emissions (similar). This alternative assumes a roughly identical new middle school to the proposed project would be constructed and operated at the alternative site. Therefore, as construction and operational activities would be roughly equivalent for this alternative compared to the proposed project, greenhouse gas emissions from this alternative would be similar in nature.

Hazards and Hazardous Materials (similar). This alternative, as does the proposed project, has the potential to result in the accidental release of hazardous materials from disturbance of undocumented buried storage containers or contaminated soils during construction. Consequently, the proposed project and this alternative have the same potential for impact, and the impacts would be similar.

Hydrology and Water Quality (similar). Impervious surfaces and rates and volumes of peak runoff associated with the proposed project would be similar for this alternative. As for the proposed project, development would be subject to compliance with BMPs and standards established for compliance with non-point discharge emissions for storm water and adequate drainage facilities. Therefore, it is assumed that like the proposed project, storm water detention

facilities would need to be constructed under this alternative. Furthermore, a similar sized middle school at the alternative location would have a similar demand for groundwater, thereby representing a significant impact based on the uncertainty of groundwater supplies. Therefore, the hydrology and water quality impacts of this alternative would be similar to the proposed project.

Land Use & Planning (similar). The alternative location for a new middle school is identified in the General Plan as a possible location of a future middle school in the school district's boundaries. The project site is also identified within a long range planning document, albeit one still in draft form, as the site for future school development; In the proposed Specific Plan, the alternative site is identified for Neighborhood Center use. Furthermore, existing City land use designations and zoning for the project site would allow for development of a middle school on the site. Potential land use and planning conflicts would be roughly similar between the proposed project and this alternative.

Noise (similar/greater). Noise generation associated with this alternative would be similar to the proposed project as this alternative would establish a similar-sized middle on the alternative site. However, short-term noise impacts from this alternative may be increased as compared to the proposed project. The project site is currently located approximately 0.4 miles from the nearest residential neighborhood and the alternative location is located in closer proximity to existing residences, and thus, the alternative may contribute an increased amount of noise to existing ambient noise levels as a result of construction and operational activities. Therefore, this alternative would most likely have greater noise impacts than the proposed project.

Public Services (similar). The increased demand for public services (fire, police, emergency response) would be similar for this alternative as for the proposed project. Locating a similar-sized middle school on the alternative site would have similar increased demand for public service providers as for the proposed project. Both the project site and the alternative site could be served from existing facilities and would not require expansion of those facilities.

Traffic and Circulation (similar/greater). Potential impacts to traffic and circulation from this alternative would more than likely be similar to those of the proposed project. However, due to the alternative site's location at a heavily used intersection, development of a middle school on the alternative site may result in an increased amount of site access impacts.

Utilities (similar). The increased demand for utilities (water, wastewater, solid waste, electricity, and natural gas) would be similar for this alternative as for the proposed project. Locating a similar-sized middle school at the alternative site would have similar increased demand for utility providers as for the proposed project.

Comparison of Alternative Site Alternative with Proposed Project Objectives

The following objectives, as prepared by the applicant, outline the underlying purpose of the proposed project. The objectives of the proposed project are to:

- Provide students with a rigorous and comprehensive academic program which will prepare them in becoming responsible and independent citizens of a global society;
- Provide a high-quality transition of students from the more structured elementary school to the middle school environment and then on to the high school environment to ensure the student's positive emotional, mental and physical development focusing on:
 - Academic achievement;
 - Providing a variety of activities to explore greater possibilities for independent thinking;
 - Exposing students to a more global sense of community to include cultural, academic and interest diversity;
 - Providing a safe and orderly environment to foster a personal sense of community ownership and responsibility; and
 - Providing facilities that encourage and support the learning environment.
- Provide design and construction methodology that includes a high degree of flexibility to accommodate program changes in the future and is organized in a manner which ensures a sense of community and a personalized education experience for each student;
- Eliminate portable classrooms that have become too old to maintain; reduce student densities on school sites which exceed California Department of Education recommendations;
- Free up classroom space that can be used for special programs;
- Take maximum advantage of State school facility funds; and
- Construct one new middle school (middle school #5) with a capacity of 1,000 students.

The Alternative Site alternative would be consistent with the proposed project's objectives. However, based on the fact that the proposed project has already undergone a considerable amount of upfront planning by the school district and the proposed project site has already been designated and planned for future school development in the proposed Specific Plan, this alternative would not be entirely consistent with the objective to construct a new middle school. The delay which would be associated with the planning for the alternative site location would not only delay the construction of a new middle school, but would also delay the elimination of portable classrooms within the school district's schools. The alternative site does not provide significant environmental advantages over the project site, and may result in slightly greater noise and traffic impacts.

6.3 COMPARISON OF ALTERNATIVES

The alternatives are summarized and compared in a matrix format in Table 21, Project Alternatives Summary. Impacts are considered to be less (–), similar (=), or greater (+) when compared to impacts associated with the proposed project.

Environmental Topic	No Project/No Development on Site	No Project/No New Middle School	Alternative Site
Aesthetics	=	_	Π
Agricultural Resources	=	_	=
Air Quality	=	=/-	=/+
Biological Resources	=	_	=/-
Cultural Resources	=	_	=
Geology and Soils	=	_	=
Greenhouse Gas Emissions	=	=/-	=
Hazards and Hazardous Materials	=	_	=
Hydrology and Water Quality	=	=/-	=
Land Use and Planning	=/+	_	=
Noise	=/+	_	=/+
Public Services	=	-	=
Transportation and Traffic	=	=/-	=/+
Utilities	=	_	=
Project Objectives	=/-	_	=/-

Table 21	Project	Alternatives	Summary
			~

Source: EMC Planning Group 2016

Environmentally Superior Alternative

As displayed above in Table 21, Project Alternatives Summary, the No Project/No New Middle School alternative would have the least amount of adverse environmental impacts compared to the No Project/No Development on Site and Alternative Site alternatives. However, the No Project/No New Middle School alternative would not meet the objectives of the proposed project and would be least consistent with the proposed project's objectives of the three alternatives.

The No Project/No Development on Site alternative would conceptually have similar impacts as the proposed project; however, as identification of an alternative location for a new middle school has not been identified and is beyond the scope of this EIR, it can be reasonably deducted that potential land use planning and noise impacts may be greater than those of the proposed project. The No Project/No Development on Site alternative would be consistent with the objectives of the proposed project. However, based on the delay which could be anticipated with the identification and design for an alternative new middle school location, certain objectives would be difficult to maintain or achieve.

The Alternative Site alternative would avoid the proposed project's potential impact to biological resources. However, the Alternative Site alternative would result in significant impacts to aesthetics, agricultural resources, and hydrology and water quality (groundwater supply) similar to the proposed project. Furthermore, based on the alternative site's location in closer proximity to sensitive receptors, construction impacts associated with air quality and noise can be anticipated to be greater than for the proposed project. Lastly, based on the alternative site's location at heavily used intersection, site access may pose greater impacts to transportation and traffic than the proposed project. The Alternative Site alternative would be consistent with the objectives of the proposed project. However, based on the delay which could be anticipated with the identification and design for an alternative new middle school location, certain objectives would be difficult to maintain or achieve.

Therefore, the environmentally superior alternative would be the No Project/No New Middle School alternative; however, this alternative would minimally meet the objectives of the proposed project. Therefore, the No Project/No Development on Site alternative would be the environmentally superior alternative which also meets the objectives of the proposed project.

6.0 ALTERNATIVES

This side intentionally left blank.

7.0

SOURCES AND REPORT PREPARERS

7.1 SOURCES

Alco Water Service. 2005 Urban Water Management Plan. September 2008.

Archeological Consulting. Preliminary Archaeological Reconnaissance of APN 211-011-011 in Salinas, Monterey County, California. January 30, 2006.

Association of Monterey Bay Area Governments. *Metropolitan Transportation Plan and Sustainable Communities Strategy*. Accessed online at: http://ambag.org/programs-services/planning/metro-transport-plan (accessed December 2015).

- Baldwin BG, Goldman DH, Keil DJ, Patterson R, Rosatti TJ. Wilken DH. *The Jepson manual, vascular plants of California*. 2nd edition. Berkeley, CA. Univ. of California Press, 2012.
- California Department of Fish and Wildlife (CDFW). California Natural Diversity Database.
 Records of Occurrence for Natividad, Salinas, Mount Harlan, Prunedale, San Juan
 Bautista, Hollister, Spreckels, Chualar, and Gonzales USGS quadrangles. December
 2015. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp
 (accessed December 2015).
- California Energy Commission. Cal-Adapt website. Accessed online at: http://cal-adapt.org/page/about-caladapt (accessed January 2016).
- California Energy Commission. *Energy Almanac. Natural Gas Supply by Region.* 2014. http://energyalmanac.ca.gov/ naturalgas /natural_gas_supply.html (accessed January 2016).

- California Energy Commission. *California Energy Demand 2014---2024 Preliminary Forecast, Volume* 2: Electricity Demand by Utility Planning Area. May 2013. http://www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-SD-V2.pdf (accessed January 2016).
- California Air Pollution Control Officers Association. Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. 2010. http://capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf (accessed December 2015).
- California Air Resources Board. *Advanced Clean Cars Summary*. No Date. http://www.arb.ca.gov/msprog/clean_cars/acc%20summary-final.pdf (accessed December 2015).
- California Air Resources Board. *California Greenhouse Gas Emissions Inventory 2000-2010*. (February 19, 2013), Accessed online at: www.arb.ca.gov/cc/inventory/data/tables/ ghg_inventory_scopingplan_00-10_2013-02-19.pdf (accessed December 2015).
- California Air Resources Board. *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document*. 2011. Accessed online at: http://www.arb.ca.gov/cc/scopingplan/document/final_supplement_to_sp_fed.pdf (accessed December 2015).
- California Air Resources Board. *First Update to the Climate Change Scoping Plan*. http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_ scoping_plan.pdf (accessed December 2015).
- California Air Resources Board. Ambient Air Quality Standards. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. October 1, 2015 (accessed December 2015).
- California Department of Conservation (DOC). Division of Land Resource Protection, Land Conservation Act (Williamson Act) website. Monterey County Williamson Act FY 2011/2012 map (sheet 1 of 1). 2012. Available online at: ftp://ftp.consrv.ca.gov/ pub/dlrp/wa/ (accessed December 2015).
- California Department of Conservation, Division of Land Resource Protection. FMMP . 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp (accessed December 2015).
- California Department of Toxic Substances Control (DTSC). Envirostor database. http://www.envirostor.dtsc.ca.gov (accessed October 2015).

- California Energy Commission. Energy Efficiency Standards for Residential and Nonresidential Buildings. May 2012.
- California Energy Commission. 2013 Building Energy Efficiency Standards Adoption Hearing Presentation. http://www.energy.ca.gov/title24/2013standards/rulemaking/documents /2012-05-31_2013_standards_adoption_hearing_presentation.pdf (accessed December 2015).
- California Native Plant Society (CNPS). February 2015. *Inventory of Rare and Endangered Plants*. Records of Occurrence for Natividad, Salinas, Mount Harlan, Prunedale, San Juan Bautista, Hollister, Spreckels, Chualar, and Gonzales USGS quadrangles. Sacramento, California. http://www.cnps.org/inventory
- California Public Utilities Commission. California Renewables Portfolio Standard, Current Renewable Procurement Status. http://www.cpuc.ca.gov/PUC/energy/Renewables/ (accessed December 2015).
- California Regional Water Quality Control Board (RWQCB). Geotracker database. Accessed on January 19, 2015 at: http://geotracker.waterboards.ca.gov (accessed November 2015).
- California Water Service Company. 2010 Urban Water Management Plan Salinas District. June 2011.
- CalRecycle. Facility/Site Summary Details: Johnson Canyon Sanitary Landfill (27-AA-0005). www.calrecycle.ca.gov/SWFacilities/Directory/27-AA-0005/Detail (accessed October 2015).
- City of Salinas. Agricultural Land Preservation Program. March 25, 2008.
- City of Salinas/County of Monterey. Greater Salinas Area Memorandum of Understanding. 1998.
- City of Salinas. City of Salinas General Plan. September 2002.
- City of Salinas. Final Supplement for the Salinas General Plan Final Program EIR. November 19, 2007.
- City of Salinas. *City of Salinas Municipal Code*. http://library.municode.com/index.aspx?clientId=16597 (accessed September/October 2015).

City of Salinas. Greater Salinas Area Memorandum of Understanding. Adopted August 29, 2006.

City of Salinas. City of Salinas Sanitary Sewer Master Plan. August 2011.

City of Salinas. City of Salinas Storm Water Master Plan, May 2004.

City of Salinas. Official Zoning Map.

http://www.ci.salinas.ca.us/services/commdev/pdf/SalinasZoningMap.pdf (accessed September/October 2015).

City of Salinas. The City of Salinas Traffic Improvement Program. 2010.

County of Monterey Agricultural Commissioner's Office. Monterey County Crop Report. 2013.

County of Monterey. County of Monterey (CA) General Plan. August 26, 2010.

EMC Planning Group. Final Initial Study Creekbridge Middle School Site Acquisition. May 2009.

- Illingworth & Rodkin. Salinas Union Middle School Project Environmental Noise Assessment, Salinas, California. October 23, 2015.
- Jennings, M. R., and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. Final Report to the California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, CA. 225 pp.
- Google Earth. Aerial Photography. October 6, 2015.
- Kennedy/Jenks Consultants. Hydrostratigraphic Analysis of the Northern Salinas Valley. May 14, 2004.
- Kimley-Horn. Transportation Impact Analysis, Salinas New Middle School. October 2015.
- Kleinfelder. Geologic and Seismic Hazards Assessment Report for the Proposed New SUHSD Middle School Campus Planned North of E. Boronda Road in Salinas, California. January 9, 2013
- Kleinfelder. Revised Preliminary Environmental Assessment Report, Creekbridge Middle School Site, APNs 153-091 -006; 153-091 -007, Salinas, California. August 2010.
- Kleinfelder. Phase 1 Environmental Site Assessment Proposed New School Site Probert/Matsui Property North of East Boronda Road Salinas, California. January 22, 2009.
- Lyons, K., and B. Mori. 2005. Existing Biological Resources Report, Salinas Annexation Project, Salinas, California. Appendix E of Draft Central Area Specific Plan.Monterey County. 2010 Monterey County General Plan. Adopted October 2010.
- Monterey County Water Resources Agency. Water Resources Report. October 1997.

- Monterey Peninsula Water Management District (MPWMD). Non-Residential Water Use Factors. Worksheet for Non-Residential Water Permit Fees. http://www.mpwmd. dst.ca.us/wdd/Forms/forms.htm (accessed October 2015).
- Monterey Regional Water Pollution Control Agency (MRWPCA). Monterey Regional Water Pollution Control Agency website. Water recycling page. http://www.mrwpca. org/recycling/index.php (accessed October 2015).
- Pacific Gas & Electric. *Annual Renewable Energy Report*. http://www.pge-corp.com/corp_responsibility/reports/2015/bu06_renewable_energy.jsp (accessed December 2015)
- Pajaro Valley Water Management Agency. Crop Water Use Study 1994-1997. 1998.

Perkins Coie, LLP. AB 52 Amends CEQA by Creating a New Category of Cultural Resources and New Requirements for Consultation with Native American Tribes. http://www.californialandusedevelopmentlaw.com/2014/09/30/ab-52-amends-ceqaby-creating-a-new-category-of-cultural-resources-and-new-requirements-for-consultationwith-native-american-tribes (accessed October 2015).

- Ruggeri-Jensen-Azar & Associates (RJA). Improvement Plans for Future Middle School Offsite Improvements. December 2014.
- Salinas Union High School District (SUHSD). Map of the Salinas Union High School District Middle School Attendance Areas (Salinas Detail). October 2015.
- San Luis Obispo County Air Pollution Control District (SLOAPCD). CEQA Air Quality Handbook, a Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review. April 2012.
- San Luis Obispo County Air Pollution Control District (SLOAPCD). SLOAPCD Greenhouse Gas Thresholds and Supporting Evidence. 2012.
- Stebbins, R. C. 1985. A field guide to western reptiles and amphibians. Second edition, revised. Houghton Mifflin Company, Boston, MA.
- Thrust IV, Inc. Draft Central Area Specific Plan. 2013.
- Trenham, P. C., W. D. Koenig, and H. B. Shaffer. 2001. "Spatially autocorrelated demography and interpond dispersal in the salamander *Ambystoma californiense*." Ecology 82:3519-3530.United Nations Framework Convention on Climate Change. Global Warming Potentials. http://unfccc.int/ghg_data/items/3825.php (accessed December 2015).

- United States Department of Agriculture, Natural Resource Conservation Service (NRCS). Soil data for Monterey County, California. April 2009. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed October 2015).
- United States Department of Agriculture, Soil Conservation Service (SCS). Soil Survey of Monterey County, California. April 1978.
- United States Department of Transportation. *Transit Noise and Vibration Impact Assessment*. May 2006.
- United State Fish and Wildlife Service. 2004. Federal Register Final Rule; Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the California Tiger Salamander; and Special Rule Exemption for Existing Routine Ranching Activities. Vol. 69 (149). 47211-47248.
- United States Fish and Wildlife Service (USFWS). February 2015a. *Endangered Species Program*. Species list for Monterey County. Washington, D.C. http://www.fws.gov/endangered/
- United States Fish and Wildlife Service (USFWS). April 2015b. *National Wetlands Inventory*. Washington, D.C. http://www.fws.gov/wetlands/Data/Mapper.html
- United States Environmental Protection Agency. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2009* (USEPA #430-R-11-005). April 2011.
- United States Geological Survey. Groundwater Atlas of the United States: California, Nevada. 1995.
- Wood Rodgers, Inc. Preliminary Stormwater Control Plan Salinas Union High School District New Middle School. November 2015.

7.2 PERSONAL CONTACTS

Gabriel, Elliot. Email message to consultant, 6 October 2015.

Gabriel, Elliot. Telephone conversation with consultant, 6 October 2015.

Mutziger, Andy, San Luis Obispo Air Pollution Control District. Telephone conversation with consultant, 16 December 2015.

7.3 **REPORT PREPARERS**

Teri Wissler Adam, Senior Principal Principal-in-Charge

Richard James, MUP, AICP, Principal Project Manager

Ron Sissem, MRP, Principal Climate Change Analysis and Report Preparation

Polaris Kinison-Brown, MS, Principal Planner Report Preparation

Bryce Ternet, MA, Senior Planner Report Preparation

Andrea Edwards, Senior Biologist/Certified Arborist Report Preparation, Biological Analysis

Stephanie Krantz, MS, Associate Biologist Report Preparation, Biological Analysis

Stuart Poulter, MCRP, Assistant Planner Report Preparation

Dana McCarthy, PG, Assistant Planner Report Preparation

Chris Schmidt, Assistant Planner Graphics

Tiffany Robinson, Administrative Assistant Report Production

Subconsultants

Illingworth & Rodkin Noise Assessment

Kimley-Horn and Associates Traffic Impact Analysis

Wood Rogers Stormwater Control Plan This side intentionally left blank.