November 2020

DRAFT

ENVIRONMENTAL IMPACT REPORT

Monterey High School Stadium Improvements Project

PREPARED FOR:

Monterey Peninsula
Unified School District

540 Canyon Del Rey Boulevard
Monterey, CA 93940

Draft Environmental Impact Report
for the
Monterey High School Stadium Improvements

State Clearinghouse No. 2019079092

Prepared for

Monterey Peninsula Unified School District
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Monterey, CA 93940

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November 2020

TABLE OF CONTENTS

Appendices (included in a CD on back cover)

Figures

Tables

LIST OF ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
AB	Assembly Bill
ADA	Americans with Disabilities Act
AIA	Airport Influence Area
ALUCP	Airport Land Use Compatibility Plan
AMBAG	Association of Monterey Bay Area Governments
ANSI	American National Standards Institute
amsl	above mean sea level
AQMP	Air Quality Management Plan
AWPF	Advanced Water Purification Facility
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CAAQS	California ambient air quality standards
CAD	Computer Aided Design
CAFE	corporate average fuel economy
Cal Am	California American Water
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
CIE	Commission of Illumination
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society

CO	carbon monoxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dB	decibel
diesel PM	exhaust from diesel engines
DPR	California Department of Parks and Recreation
Draft EIR	draft environmental impact report
DSA	Division of the State Architect
DTSC	California Department of Toxic Substances Control
du/acre	dwelling units per acre
EAP	Energy Action Plan
EO	Executive Order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
ESA	federal Endangered Species Act
FEMA	Federal Emergency Management Agency
FGC	California Fish and Game Code
FHSZ	fire hazard severity zone
FIRM	Flood Insurance Rate Maps
FTA	Federal Transit Administration
GHG	greenhouse gas
HAP	hazardous air pollutants
HRE	Historic Resources Evaluation
Hz	hertz
IESNA	Illuminating Engineering Society of North America
ILP	Institution of Lighting Professionals
in/sec	inches per second
IWMA	Integrated Waste Management Act
KOP	key observation points
lb/day	pounds per day
L_{dn}	Day-Night Level
LEA	Local Enforcement Agency
LED	light-emitting diode
L_{eq}	Equivalent Continuous Sound Level

L_{max}	Maximum Sound Level
L_{min}	Minimum Sound Level
LUST	leaking underground storage tank
MBARD	Monterey Bay Air Resources District
MBCCE	Monterey Bay Community Choice Energy
MBCP	Monterey Bay Community Power
MBTA	Migratory Bird Treaty Act
MCDS	Monterey City Disposal Service
MHS	Monterey High School
MLD	most likely descendant
$MMTCO_2e$	metric tons of carbon dioxide equivalent
mPa	micro-Pascals
MPC	Monterey Peninsula College
MPL	Monterey Peninsula Landfill
MPO	Metropolitan Planning Organization
MPUSD	Monterey Peninsula Unified School District
MRAMP	Monterey Regional Airport Master Plan
MRF	Materials Recovery Facility
MRSWMP	Monterey Regional Storm Water Management Program
MS4	municipal separate storm sewer systems
MST	Monterey-Salinas Transit
MT CO_2e/year	metric tons of CO_2e per year
MTP	Metropolitan Transportation Plan
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCCAB	North Central Coast Air Basin
NEHRP	National Earthquake Hazards Reduction Program
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NO	nitric oxide
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OES	Office of Emergency Services
OPR	California Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
ozone	photochemical smog

PG&E	Pacific Gas and Electric Company
PM_{10}	respirable particulate matter with aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$	fine particulate matter with aerodynamic diameter of 2.5 micrometers or less
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
PPV	peak particle velocity
PRC	Public Resources Code
RCP	Representative Concentration Pathway
RMS	root-mean-square
ROG	reactive organic gases
RTP	Regional Transportation Plan
RWQCB	regional water quality control board
SB	Senate Bill
SCS	Sustainable Communities Strategy
SEL	Single Event Noise Level
SFBAAB	San Francisco Bay Area Air Basin
SGMA	Sustainable Groundwater Management Act of 2014
SIP	state implementation plan
SLF	Sacred Lands File
SO_2	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasure
SPL	sound pressure level
SR	State Route
SSMP	Sewer System Management Plan
SSO	sanitary sewer overflows
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources
TAC	Toxic air contaminants
TAMC	Transportation Agency for Monterey County
TCR	tribal cultural resource
TMDL	total maximum daily load
TTC	traffic control plan
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	waste discharge requirements
WQO	Water Quality Objectives

WSA	water supply assessment
WUI	wildland urban interface
WWTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This summary is provided in accordance with California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15123. As stated in Section 15123(a), "an EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." The summary must identify each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect, areas of controversy known to the lead agency, and issues to be resolved including the choice among alternatives or how to mitigate the significant effects.

ES.2 SUMMARY DESCRIPTION OF THE PROJECT

ES.2.1 Project Description Overview

On June 5, 2018 voters in Monterey County approved Measure I, which authorized the Monterey Peninsula School District (MPUSD or District) to issue up to $213 million in bonds to fund needed repairs/updates to existing school facilities, construct new classrooms, athletic fields, science labs, and procure needed equipment. The District identified the proposed improvements to the Dan Albert Stadium and construction of a new multiuse athletic field as one of numerous projects to be funded under Measure I.

The District proposes to implement several improvements to the athletic facilities at Monterey High School (MHS) in the City of Monterey, California. In summary, the proposed project includes the following elements:

- Lower field: An existing dirt area adjacent to the Dan Albert Stadium that is occasionally used for overflow parking during events would be improved for use as a softball/multi-use field. The surface of the multi-use field would be synthetic turf. Additionally, a new approximately 1,920-square-foot weight room/team room building would be constructed. Improvements would also be made to a track and field event area.
- Stadium Lights: New field lighting would be installed at the Dan Albert Stadium; it would consist of four 70-foot-tall light standards.
- Existing home bleachers and press box: Americans with Disabilities Act-compliant seating spaces, guard/handrails, and other renovations would be made to the existing home bleachers at Dan Albert Stadium, in accordance with standards for restoration and protection of a historical resource. A pre-fabricated press box would replace the temporary press box. A new public address system is proposed. The capacity of the home bleachers would not change.
- Visitor bleachers: New 300-seat visitor bleachers would be installed at the Dan Albert Stadium, opposite the existing seating area, to provide separation between the home team and visiting team fans.

ES.2.2 Project Objectives

MPUSD identified the following objectives to guide development of the proposed project:

- Improve on-campus athletic facilities at Monterey High School for athlete practice and games to enhance opportunities for after-school athletic and extracurricular activities for students. MHS currently has one field that hosts all athletic activities. At some times, athletes for multiple sports, such as field hockey, football, water polo, and cheerleading, are together, all sharing the Dan Albert Stadium field, which can restrict the options for student athletes to practice because too many athletes on the field at once can lead to safety issues. Therefore, the District proposes to construct new and expand existing facilities to allow for more practices to safely occur at once and to

expand the options that student athletes have for practicing, game play, and conditioning. Additionally, the Dan Albert Stadium does not have facilities that are compliant with the Americans with Disabilities Act (ADA), and the District proposes to upgrade facilities so that spectators in need of ADA-compliant access are able to attend games and other events. An upgraded public address system would also facilitate announcements, some of which are mandated by the Central Coast Section Playoff Bylaws. This will contribute to a more robust student athlete program at MHS.

- Facilitate night-time athletic events and practices at the Dan Albert Stadium. Use of temporary night lighting is currently an option at the Dan Albert Stadium for certain MHS activities, including practices and some games, occurring outside of the daytime. The temporary lighting is insufficient and inadequate for a number of reasons, and the District seeks a more efficient, effective, and well-designed option than temporary lighting. Some drawbacks of the temporary lighting included unpleasant odors and noise from generators. The temporary lighting is also insufficient for safety reasons. For instance, Peninsula Sports, Inc., will not provide referees for football games held under the temporary lighting at Dan Albert Stadium. Currently, MHS holds night-time football games at the Monterey Peninsula College, which requires payment of rental fees and also moves athletic activities off campus, which is disruptive to academic activities. Additionally, soccer games must end early when they go into evening hours due to lack of lighting. The District, therefore, seeks to find a better option for hosting night-time MHS activities on the MHS campus.
- Provide adequate visitor seating separated from the home team seating area at the Dan Albert Stadium. The existing seating at the Dan Albert Stadium does not provide separation of home and visitor spectators. Seating MHS home fans together boosts school pride and reduces conflicts, which results in a better game experience for all attendees and enhanced safety for spectators. The Pacific Coast Athletic League Commissioner has communicated to MPUSD that separate sections for home and visiting fans are important for fan safety and crowd control. Therefore, the District is proposing a seating configuration at the stadium that separates home and visiting team fans.

ES.3 ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND ALTERNATIVES

ES.3.1 Impacts and Mitigation Measures

Table ES-1 identifies the effects of the proposed project and the mitigation measures that would be implemented to reduce significant impacts. Some impacts could be mitigated to less than significant, but others would remain significant.

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Aesthetics			
Impact 3.1-1: Have a Substantial Adverse Effect on a Scenic Corridor or Vista The project site is not visible from Pacific Street, a proposed scenic road, nor does the project propose any changes along Pacific Street. Long-range views of the Monterey Bay can be seen to the northwest from the stone bleachers in the Dan Albert Stadium. Because proposed lighting would be mounted on narrow poles, and project improvements at the lower field would be constructed generally to the west of the stone bleachers, the project would not substantially obstruct spectator views of the Monterey Bay. The impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.1-2: Substantially Degrade Existing Visual Character or Quality from Construction and Completed Facility Changes (Not Including Light and Glare; See Impact 3.1-3) Construction activities would be consistent with existing activities on site, and would also be temporary. The project components would be consistent with the existing visual character and quality of the site, with a potential for an increase in visual quality in the lower field area. Therefore, the impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.1-3: Create a New Source of Substantial Light or Glare During Construction and When in Use after Completion The project would install new permanent lighting at the Dan Albert Stadium, which currently lacks permanent on-site field lighting. The proposed light fixtures would be at the top of 70-foot poles. They would be designed consistent with IESNA's light trespass standard and CIE's light intensity glare standards. Light fixtures would be designed to direct light downward to minimize light trespass and sky glow. However, proposed lighting would be visible to the surrounding area, which would alter the nighttime environment with additional illuminance. When the marine layer is present as low clouds or fog, the visible illuminance would also be perceived as cloud reflection or fog light scattering. From public streets in the surrounding neighborhood, the proposed lighting would be visible to sensitive viewer groups. Therefore, impacts on light and glare conditions would be potentially significant.	PS	**Mitigation Measure 3.1-3: Restricted Use of Lighting at Dan Albert Stadium** MPUSD shall implement the following restrictions to limit the use of lighting at Dan Albert Stadium. ▶ **MHS Athletic Game use of Lighting at Dan Albert Stadium:** While lights may be used for all evening football games, lights shall be used only for up to four games played by each of the other MHS field sports (soccer, field hockey, and lacrosse) during the months of October to March. This would total sixteen games combined of soccer, field hockey, and lacrosse. Field sport games other than football shall end by 7:00 p.m. and lights shall be turned off by 8:00 p.m. Lights shall not be used for any games during the months of April through September. ▶ **MHS Athletic Practice use of Lighting at Dan Albert Stadium:** Lights shall be used for field sports practices only during the months of October to March. Field sports practices shall end by 7:00 p.m. and lights shall be turned off by 8:00 p.m. Lights shall not be used for any practices during the months of April through September. ▶ **Weekday use:** Any use of the lower field or Dan Albert Stadium field by non-school related groups shall end by 6:00 p.m.	SU

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		▶ **Weekend use:** On Saturdays, use of the lower field or Dan Albert Stadium field for school-related activities and non-school related activities shall end by sunset. Use of the lower field or Dan Albert Stadium field shall not occur on Sundays. Because of these restrictions, lighting at Dan Albert Stadium shall not be used on weekends.	
Air Quality			
Impact 3.2-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan The proposed project would result in the emission of criteria air pollutants but they would not exceed MBARD's criteria air pollutant thresholds. The proposed project includes improvements to, the athletic facilities at MHS, which would not result in an increase in population. Therefore, the project would be consistent with AMBAG's population growth projections and the projections contained in the MBARD's AQMP. No impact would occur related to conflict with Air Quality Plans.	NI	No mitigation is required for this impact.	NI
Impact 3.2-2: Result in a Cumulatively Considerable Net Increase of Any Criteria Pollutant for Which the Project Region Is Non-Attainment Under an Applicable Federal or State Ambient Air Quality Standard Construction of the athletic field improvements would generate short-term exhaust emissions of criteria air pollutants from the use of heavy-duty off-road construction equipment, haul trucks associated with materials transport, and vehicle use during worker commute. Operation of the proposed project would also generate emissions of criteria air pollutants. Emissions during construction and operation would not exceed MBARD's thresholds. The project is also consistent with the AQMP (see Impact 3.2-1). Therefore, the proposed project would not result in a cumulatively considerable contribution to a net increase of any criteria air pollutant for which the project region is non-attainment as defined by an applicable federal or state ambient air quality standard, nor would it result in greater acute or chronic health impacts compared to existing conditions. Criteria air pollutant impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.2-3: Expose Sensitive Receptors to Substantial Toxic Pollutant Concentrations The proposed project would result in short-term diesel exhaust emissions from heavy-duty construction equipment and haul trucks, which could affect nearby receptors during the construction period. Because of the short duration of construction and because construction would not take place near the same	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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receptors for an extended period, diesel PM generated by the proposed project would not expose any person to an incremental increase in cancer risk greater than one incident per 100,000 population. Potential for exposure to toxic air pollutants would be less than significant.			
Archaeological, Historical, and Tribal Cultural Resources			
Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of a Known Historical or Archaeological Resource Project improvements would make changes to a known historical resource, i.e., the stone bleachers of Dan Albert Stadium. The changes have been designed consistent with a Preservation Treatment Plan that meets the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, thus preserving the features of the resource that contribute to its historical significance. Alteration of this historical resource would therefore result in a less than significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Previously Undiscovered Historical Resource or Archaeological Resource Project-related ground disturbing construction activities could result in discovery or damage of undiscovered subsurface unique archaeological resources. This would be a potentially significant impact.	PS	**Mitigation Measure 3.3-2a: Train Workers to Respond to the Discovery of Cultural Resources** Prior to commencement of construction activities, all project personnel conducting ground-disturbing activities shall receive training regarding the potential for exposing subsurface cultural resources, appropriate work practices for implementing mitigation measures and complying with applicable laws and regulations, and how to recognize possible buried resources. The training shall include a presentation of procedures to follow upon discovery or suspected discovery of cultural resource materials, including Native American remains and their treatment, and actions that may be taken if there is violation of applicable laws. **Mitigation Measure 3.3-2b: Follow Appropriate Procedures in the Case of a Discovery of an Unidentified Cultural Resource** In the event that any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted and a qualified professional archaeologist shall be retained to assess the significance of the find. An exclusion area shall be established with signage and protective barriers. Entry into the area shall be limited to authorized personnel and a qualified cultural resources specialist or archaeologist, and the contractor shall immediately notify MPUSD. Preservation in place (avoidance) is the preferred method of mitigation for impacts on cultural resources (CEQA Guidelines section 15126.4(b)(3)(A)) and is required	LTS

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		unless the cultural resources specialist or qualified archaeologist determines that another method would provide superior mitigation of impacts to the resource. No additional mitigation is necessary if the resource can be completely avoided, but the resource shall be recorded on DPR 523 forms, which shall be filled with the Northwest Information Center. The qualified cultural resources specialist or archaeologist shall follow the procedures below if the resource cannot be completely avoided. ▶ Determine if the resource is an historical resource: The qualified cultural resources specialist or archaeologist shall determine if there is a potential for the resource to be a historical resource. Work can resume if there is no potential for the resource to qualify as a historical resource. If there is a potential for the resource to be a historical resource, the qualified cultural resources specialist or archaeologist shall prepare an Evaluation Plan. ▶ Prepare an Evaluation Plan: The Evaluation Plan shall be prepared specific to the resource and shall contain procedures used to determine if the discovered resource is an historical resource. The Evaluation Plan shall include enough discussion of background and context to provide for evaluation of the resource under the historical resource criteria. It shall include a description of procedures that will be used to gather information for the evaluation, which may include but not be limited to excavation, written documentation, interviews, and photography. For any archaeological resource testing, the Evaluation Plan shall describe testing procedures, such as surface collection, test excavations, analysis methods, and reporting procedure. ▶ Implement Evaluation Plan: The evaluation plan shall be implemented in the field, and the subsequent report shall evaluate the resource based on the criteria contained in the Evaluation Plan, making a conclusion whether the resource is historical. If the resource is not historical, protective barriers can be removed and work can continue in the area. If the resource is historical, the qualified cultural resources specialist or archaeologist shall prepare a Data Recovery Plan. ▶ Prepare a Data Recovery Plan: A Data Recovery Plan shall be prepared consistent with CEQA Guidelines Section 15126.4(b)(3)(C) and Public Resources Code Section 21083.2. The Data Recovery Plan will contain a description of how data recovery will mitigate impacts to the resource to less than significant. It shall contain a description of level of effort (e.g., quantity of excavation units), excavation procedures, laboratory methods, types of samples to be collected (e.g., sediment), and the techniques that will be used to obtain information	

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		about the features of the site that make it a historical resource. Additionally, the Data Recovery Plan shall include a description of the reporting procedure. Once the Data Recovery Plan is completed, field work can commence. Work can resume in the area once the qualified cultural resources specialist/archaeologist determines that no additional information needs to be recovered to satisfy fieldwork, reporting, and documentation requirements to reduce impacts to less than significant. ▶ Prepare a Data Recovery Report: A Data Recovery Report shall be prepared following completion of data recovery field work. The Report shall present results of data recovery, including field methods used, location and size of excavations, and analysis of materials recovered. It shall contain conclusions made based on the field work as well as where any recovered artifacts, samples, and documentation will be curated. Curation facilities must meet requirements of 36 Code of Federal Regulations 79. The Data Recovery Report shall be submitted to the Northwest Information Center, with all impacted known resources recorded on DPR 523 forms.	
Impact 3.3-3: Disturb Human Remains Although no evidence exists that suggests humans remains, including those of Native American ancestry, are present on the project site, ground-disturbing construction activities could uncover previously unknown human remains. The MPUSD and project applicant would comply applicable laws that dictate procedures to follow when encountering human remains. Impacts may occur if these procedures are not followed or if work continues near the discovery. Therefore, this impact would be potentially significant.	PS	**Mitigation Measure 3.3-2a: Train Workers to Respond to the Discovery of Cultural Resources** See full text above under Impact 3.3-2. **Mitigation Measure 3.3-3: Halt Construction and Establish an Exclusion Zone Around Potential or Confirmed Human Remains** In the event that human remains or suspected remains are identified, the area where the remains are identified shall be flagged off or otherwise delineated, and all construction within 100 feet shall immediately cease. The qualified cultural resources specialist or archaeologist shall examine the materials and determine whether they might be human remains. If the materials are determined to potentially be human remains, the District shall comply with applicable laws regarding notification of the coroner. Work shall not resume until compliance with applicable laws and regulations (e.g., CEQA Guidelines section 15064.5(e); Public Resources Code Sections 5097.94, 5097.98, and 5097.99; and California Health and Safety Code Section 7050.5) has concluded.	LTS

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Biological Resources			
Impact 3.4-1: Substantially Affect Special-Status Species Either Directly or Through Habitat Modifications The project site contains suitable habitat for Monterey pine and Monterey cypress, but would remove none of these species. The project would involve removal of three mature oak trees that are surrounded by developed school grounds, so their habitat value is limited.. There would be a less than significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 3.4-2: Substantially Affect Nesting or Migratory Birds or Bats Either Directly or Through Habitat Modifications Tree removal and project construction could potentially remove habitat or disturb nests of nesting or migratory birds. Operation of the project would not adversely affect bats and birds. Construction impacts would be potentially significant, because of the potential to remove active nests.	PS	**Mitigation Measure 3.4-2: Avoid nesting birds** To minimize the potential for loss of active bird nests, project activities (e.g., ground disturbance, demolition, use of heavy equipment, presence of construction crews) shall commence during the nonbreeding season (September 1-January 31), if feasible. If all project activities are completed during the nonbreeding season, no further mitigation would be required. If tree removal cannot avoid the nesting season, prior to commencing project activities between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nests on any tree, other vegetation, or structure within 500 feet of the project footprint. The surveys shall be conducted no more than 14 days before construction begins. If no active nests are found during focused surveys, no further action under this measure will be required. If active nests are observed during the preconstruction surveys, the biologist shall notify CDFW. No tree shall be removed if an active bird nest is present. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives shall be evaluated and implemented to the extent feasible. If avoidance of the nesting season is not feasible or conflicts with project objectives, construction shall be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest is no longer active. Buffers may be reduced in consultation with CDFW. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of each nest to characterize "normal" bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g. defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to	LTS

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		cease all construction work in the area until the young have fledged and the nest is no longer active. A survey report shall be prepared to document survey results. If monitoring is needed, the report shall also include the results of monitoring.	
Impact 3.4-3: Substantially Affect State or Federally Protected Wetlands (Including, but not Limited to, Marsh, Vernal Pool, Coastal, etc.) Through Direct Removal, Filling, Hydrological Interruption, or Other Means No state or federally protected wetlands are located on the project site. Project construction would occur on previously disturbed areas and include minimal ground disturbance. Erosion and sedimentation controls as well as measures to minimize polluted runoff are included in the project. Direct removal, filling, or hydrological interruption to state or federally protected are not included as part of the project. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.4-4: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Identified in Local or Regional Plans, Policies, or Regulations or by CDFW or USFWS No riparian habitat or other sensitive natural communities are located on the project site. Erosion and sedimentation controls as well as measures to minimize polluted runoff are included in the project and would reduce impacts to nearby riparian and riverine habitat. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.4-5: Conflict With Any Local Policies or Ordinances Protecting Biological Resources, such as a Tree Preservation Policy or Ordinance The project would comply with all local policies or ordinances protecting biological resources, including General Plan policies from the Conservation Element and the City's Tree Ordinance. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Energy			
Impact 3.5-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operation Energy needs for project construction would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy. Unnecessary idling would be limited, and equipment would be properly maintained. Thus, project construction would not result in wasteful, inefficient, or unnecessary consumption of energy. During the operational phase, the project would consume energy as a result of a number of project components, including on-site lighting, vehicle use, and water	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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conveyance. Largely, these energy-consuming activities are occurring elsewhere and, therefore, would not represent a substantial increase in energy consumption. Additionally, the project would adhere to the California Energy Code and CALGreen and incorporate water conservation and energy efficient design elements. Thus, the proposed project would be consistent with contemporary energy use/conservation requirements and would not result in the wasteful, inefficient, or unnecessary consumption of energy. Energy use impacts would be less than significant.			
Impact 3.5-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency Consistent with the goals of the EAP and the City's General Plan, the proposed project would incorporate energy efficiency and green building design measures, install water efficient landscaping, utilize MBCP, and adhere to MPUSD's Energy Conservation Program. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Geology and Soils			
Impact 3.6-1: Risk Exposing People or Buildings to Seismic Ground Shaking through Exacerbation of Existing Seismic Conditions The project site may be subject to moderate ground shaking due to its proximity to active faults in the area. However, the project would not involve activities that would exacerbate seismicity. There would be no impact.	NI	No mitigation is required for this impact.	NI
Impact 3.6-2: Result in the Potential for Seismic-Related Ground Failure, including Liquefaction The project site is located in an area with low susceptibility to liquefaction; however, project improvements are proposed in area underlain by sandy soils that would be potentially susceptible to liquefaction during a seismic event. However, compliance with the design requirements resulting from the DSA approval process would avoid the potential for project improvements to exacerbate existing conditions. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.6-3: Result in Substantial Soil Erosion or the Loss of Topsoil Construction activities would expose soils and increase the potential for soil erosion. Mandatory compliance with the statewide NPDES General Permit for Discharge of Stormwater Associated with Construction Activity would require the project to implement best management practices to reduce erosion and loss of topsoil. Therefore, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 3.6-4: Be Located on Expansive or Unstable Geologic Unit The project site is not located in the path of any known or potential landslides and the risk of lateral spreading is low. However, project improvements are proposed in area underlain by sandy soils susceptible to liquefaction and medium expansion potential. Compliance with CBC regulations and DSA review would require the project to incorporate standard engineering and seismic safety design techniques to reduce the risk to life or property. This impact would be a less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.6-5: Directly or Indirectly Destroy a Unique Paleontological Resource The project site is not known to contain paleontological resources. However, geologic units underlying the area have a high paleontological sensitivity. Therefore, certain ground-disturbing activities could affect undiscovered paleontological resources. This impact would be potentially significant impact.	PS	**Mitigation Measure 3.6-5a: Train Construction Personnel on Protocol to Follow if Fossils are Encountered** Prior to commencement of construction activities, all project personnel conducting ground-disturbing activities shall receive training regarding the potential for exposing subsurface paleontological resources (a fossilized bone or other preserved plant or animal remains), appropriate work practices for implementing mitigation measures and complying with applicable laws and regulations, and how to recognize possible buried resources. The training shall include a presentation of procedures to follow upon discovery or suspected discovery of paleontological resources, their treatment, and actions that may be taken if there is violation of applicable laws. **Mitigation Measure 3.6-5b: Follow Unanticipated Paleontological Resource Discovery Protocol** In the event that a previously unidentified paleontological resource is discovered during construction, all ground-disturbing activity within 100 feet of the resource shall be halted and a qualified paleontological resource specialist shall be retained to assess the significance of the find. An exclusion area shall be established with signage and protective barriers. Entry into the area shall be limited to authorized personnel and a qualified paleontological resource specialist, and the contractor shall immediately notify MPUSD. Preservation in place (avoidance) is the preferred method of mitigation for impacts to unique paleontological resources. No additional mitigation is necessary if the resource can be completely avoided, but the qualified paleontological resource specialist shall document the resource in accordance with professional standards such as the 2010 Society of Vertebrate Paleontology *Standard of Procedures for the Assessment of Adverse Impacts to Paleontological Resources*. A significant paleontological resource under the 2010 Society of Vertebrate Paleontology *Standard of Procedures for the Assessment of Adverse Impacts to Paleontological Resources* definition:	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
		Significant paleontological resources are fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i. e., older than about 5,000 radiocarbon years). Work can resume if there is no potential for the resource to be a unique paleontological resource. If there is a potential for the resource to be a significant paleontological resource and cannot be avoided, the qualified paleontological resource specialist shall determine appropriate mitigation measures including ensuring that fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards. Methods of recovery, testing, and evaluation shall adhere to current professional standards such as the 2010 Society of Vertebrate Paleontology *Standard of Procedures for the Assessment of Adverse Impacts to Paleontological Resources.* Work may commence after data recovery.	
Greenhouse Gas Emissions and Climate Change			
Impact 3.7-1: Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment Construction of the athletic field improvements would generate GHG emissions from the use of heavy-duty off-road construction equipment, but the emissions would be below the significance threshold. During the operational phase, the proposed project would result in area-source GHG emissions from maintenance activities, energy-source emissions; mobile-source emissions; waste-source emissions; and water-source emissions. Many of these activities already occur, and additional electricity use at MHS would use MBCP provided electricity that is not carbon based. Thus, the proposed project would not exceed BAAQMD's thresholds during construction or operation. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.7-2: Conflict with Any Applicable Plan, Policy or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs Consistent with the 2017 Scoping Plan, the City's General Plan, and the City's CAP, the proposed project would incorporate water conservation measures and energy efficiency measures, would be served by MBCP which sources carbon-free electricity, and would adhere to MPUSD's Energy Conservation Program to reduce energy and water consumption. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Hazards and Hazardous Materials			
Impact 3.8-1: Result in Substantial Release of Hazardous Materials Construction and operations of the proposed project could potentially create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The District would be required to adhere to applicable regulations and safety standards, including preparation and implementation of a SWPPP. Hazardous materials impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.8-2: Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-quarter Mile of an Existing or Proposed School The proposed project is located on the Monterey High School campus, and project construction and operations could result in the emissions of hazards or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing school. The District would be subject to all applicable existing regulations and compliance safety standards. Materials proposed to be used for synthetic turf meet current government standards and are safe. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.8-3: Creation of a Substantial Hazard due to Location Near Sites Compiled Pursuant to Government Code Section 65962.5 The project site is not located on a contaminated site pursuant to Government Code Section 65962.5. The project would have no impact.	NI	No mitigation is required for this impact.	NI
Impact 3.8-4: Creation of a Substantial Safety Hazard or Excessive Noise for People Residing or Working in the Project Area due to Proximity to the Monterey Regional Airport The Project is located within the Airport Influence Area per the Airport Land Use Compatibility Plan (ALUCP). The Project is subject to all development and design criteria of the of the Airport Land Use Compatibility Plan. Land use associated with the Project would be compatible and does not conflict with the airport land use. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.8-5: Conflict with Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan The proposed project would not physically alter existing roadways or add new roadways. A short-term increase in traffic would occur due to construction related activities but would not result in a substantial increase in traffic that would interfere with an adopted emergency response plan or emergency evacuation plan. There would be no impact.	NI	No mitigation is required for this impact.	NI

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 3.8-6: Exacerbate Wildfire or Risks due to Slope, Prevailing Winds, and Other Factors The project is in a previously disturbed urbanized area does not contain vegetation or other factors known to exacerbate wildfire risks, such as excessive slopes. Furthermore, new structures would be built in accordance with the California Building Code (CBC) and the California Fire Code and adhere to all applicable General Plan policies and safety standards. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.8-7: Require the Installation or Maintenance of Associated Infrastructure (such as Roads, Fuel Breaks, Emergency Water Sources, Power Lines, or Other Utilities) that May Exacerbate Fire Risk or that may Result in Temporary or Ongoing Impacts to the Environment The Project does not include new roadways or modifications to existing roadways and would be adequately served by existing infrastructure. As discussed in Impact 3.8-7 the Project is designed to minimize fire risk. There would be no impact.	NI	No mitigation is required for this impact.	NI
Impact 3.8-8: Expose People or Structures to Substantial Risks, Including Downslope or Downstream Flooding or Landslides, as a Result of Runoff, Post-fire Slope Instability, or Drainage Changes The relatively flat topography of the project site would not expose people or structures to substantial risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, there would be no impact.	NI	No mitigation is required for this impact.	NI
Hydrology and Water Quality			
Impact 3.9-1: Substantially Degrade Water Quality During Construction Construction of the proposed project could potentially increase runoff events and degrade surface or groundwater quality. The District would be required to adhere to applicable regulations, including preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.9-2: Substantially Decrease Groundwater Supplies or Interfere with Groundwater Recharge Implementation of the project would shift the location of current water use but would not result in a net increase in regional or local groundwater demand. The project site is not located within a groundwater basin Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 3.9-3: Substantially Alter Drainage in the Area That Would Result in Erosion, Flooding, or Increased Quantity of Stormwater Runoff During Facility Use Construction of the proposed project would introduce additional impervious pavement to the project area as well as pervious artificial turf with an associated drainage system that would generally allow for infiltration and maintenance of current drainage patterns and runoff quantities. Therefore, impacts associated with the project would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.9-4: Conflict with Water Quality Control Plan and Sustainable Groundwater Management Plan The project is not subject to any sustainable groundwater management plan and would comply with the Water Quality Control Plan for the Central Coast Basin. There would be no impact.	NI	No mitigation is required for this impact.	NI
Land Use and Planning			
Impact 3.10-1: Divide an Established Community The proposed would be constructed entirely within the existing MHS campus. Therefore, the project would not physically divide and establish community. There would be no impact.	NI	No mitigation is required for this impact.	NI
Impact 3.10-2: Result in an Environmental Impact Due to a Conflict with Land Use Plan, Policy, or Regulation The project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating environmental effects. Therefore, there would be no impact.	NI	No mitigation is required for this impact.	NI
Noise and Vibration			
Impact 3.11-1: Generate Substantial Noise Levels During Construction Construction activity would expose offsite residential land uses to increased noise levels. All noise-generating construction activity would be performed during daytime hours when construction noise is exempt from noise standards established in the City's Municipal Code, Section 38-111. Therefore, construction activity would not expose nearby residential receptors to noise levels that exceed applicable noise standards or result in sleep disturbance at residential land uses. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.11-2: Generate Vibration During Construction Project construction would likely require the use of heavy equipment that would generate ground vibration. Based on the anticipated distance to nearby sensitive land uses, construction activity would not result in ground vibration levels that	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
could cause annoyance to onsite or offsite receptors. Therefore, this impact would be less than significant.			
Impact 3.11-3: Generate Noise During Evening Use of Dan Albert Stadium and Daytime Use of the Lower Field Noise generated by evening activities at the Dan Albert Stadium and daytime activities at the lower field would expose nearby residences to noise levels that are substantially louder than existing conditions and that exceed City noise standards. This would be a significant impact.	S	**Mitigation Measure 3.11-3: Minimize Noise Levels Generated by Activities and Events at Dan Albert Stadium** The Monterey Peninsula Unified School District shall implement all feasible measures to minimize the levels of noise exposure at off-site residences from noise generated by events at Dan Albert Stadium. The goals of this mitigation are to prevent nearby residences from being exposed to noise levels that exceed the City's L02, L08, and Leq standards and/or experience noise levels substantially greater than existing conditions. Noise reduction measures include: ▶ Remove the PA system from the proposed project and restrict the use of Dan Albert Stadium for spectator events. Spectator events shall not be allowed during evening hours. ▶ If removal of the PA system from the proposed project and restricting spectator events to daytime hours is not feasible, ◤ Prohibit use of the public address system when it is not specifically necessary for a game, event, or other activity. For example, safety-related announcements, announcements required by governing leagues, and announcements regarding game play such as scoring summaries are necessary and shall be allowed. Announcements that are meant to induce cheering by the crowd, however, are not necessary. This direction shall be posted at the control station for the public address system. ◤ The public address system shall be designed to focus the sound within the bleacher areas and minimize spillover to adjacent residential areas. This shall involve specifying the direction and height of the loudspeakers, as well using the minimum volume levels required for intelligibility over background crowd noise. ◤ Events shall be scheduled to conclude before 10:00 p.m. or earlier. Note that as long as an event is scheduled to end at 10 p.m., this measure does not require that an event stop at 10 p.m. should it last beyond its scheduled time.	SU
Transportation			
Impact 3.12-1: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3, Regarding Vehicle Miles Traveled Project construction would result in a temporary and intermittent increase in VMT. However, the project would generate fewer than 110 trips per day during construction. Therefore, construction related VMT would not conflict or be inconsistent with CEQA	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Guidelines section 15064.3(b). The project-generated operational change in VMT would generally be associated with the redistribution of trips to and from the five annual home MHS football games. With implementation of the project, trips generated by these football games would originate or conclude at MHS instead of Monterey Peninsula College, where home football games are currently held. Therefore, the proposed project would result in a shift in travel patterns among local streets rather than an overall increase in trips compared to existing traffic levels. Additionally, MHS and Monterey Peninsula College are located in relatively close proximity to one another and centrally within the region to serve MHS students. Therefore, the shift in travel patterns associated with playing football games at MHS instead of Monterey Peninsula College would result in a minimal change in overall VMT as compared to existing conditions. Thus, implementation of the project would not result in a net increase in VMT. This impact would be less than significant.			
Impact 3.12-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses The hauling of heavy equipment (e.g., bulldozers, excavators, etc.) and operation of large trucks associated with project construction could result in traffic hazards along surrounding roadways with narrow right-of-way constraints. Therefore, implementation of the project could potentially substantially increase traffic hazards during the construction period. This impact would be potentially significant.	PS	**Mitigation Measure 3.12-1: Preparation and Implementation of a Temporary Traffic Control Plan** Before the beginning of project construction, the construction contractor shall prepare and implement a temporary traffic control plan (TTC). The TTC shall minimize hazards through industry-accepted traffic control practices. The TTC shall identify and utilize methods including but not limited to the following: ▶ identify transportation permits necessary for oversize and overweight load haul routes and follow regulations of the applicable jurisdiction for transportation of oversized and overweight loads; ▶ provide adequate signage and traffic flagger personnel, if needed, on Larkin Street to control and direct traffic for deliveries, if they could preclude free flow of traffic in both directions or cause a temporary traffic hazard; ▶ schedule deliveries of heavy equipment and construction materials during periods of minimum traffic flow, including scheduling large deliveries or oversize loads outside the school drop-off and pick-up times when school is in session; ▶ identify procedures for construction area evacuation in the case of an emergency declared by local authorities.	LTS
Impact 3.12-3: Result in Inadequate Parking During Events that would Result in a Significant Impact on the Environment During football games, the estimated parking demand would be approximately 433 vehicles, which would be greater than the 278 parking spaces provided on the MHS campus with implementation of the project. However, MPUSD office parking spaces, public parking lots, and on-street parking in the vicinity of the project site	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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would provide adequate unrestricted parking to account for potential parking demand not able to be accommodated by on-site MHS parking. The MPUSD offices that are adjacent to MHS and near Dan Albert Stadium would provide approximately 60 additional parking spaces to accommodate project-generated increases in parking demand during evening events. Over 300 off-street public parking spaces are located within one half mile of the project site. Therefore, because existing parking supply would be available to satisfy the parking demand associated with project-related events, the project would not result in inadequate parking during events and a significant impact on the environment would occur. This impact would be less than significant.			
Utilities and Service Systems			
Impact 3.13-1: Require Relocation or Construction of New or Expanded Water or Wastewater Treatment or Storm Water Drainage, Electric Power, or Natural Gas Facilities Implementation of the project would shift the location of current water use but would not result in a net increase in regional or local groundwater, wastewater treatment demand, or natural gas demand. The project would connect to existing utilities and would not require the construction of expanded utilities. There would be no impact.	NI	No mitigation is required for this impact.	NI
Impact 3.13-2: Result in a Substantial Impact on Water Supply Availability for the Project During Normal, Dry and Multiple Dry Years Implementation of the Project would shift the location of current water use but would not result in a net increase in regional or local demand. The Project would be adequately served by Cal Am water supplies. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.13-3: Result in Generation of Solid Waste That May Impair Waste Services, Attainment of Solid Waste Reduction Goals, or Exceed State or Local Standards or Capacity of Infrastructure Project construction would result in a short-term generation of solid waste over the course of the eleven-month construction period. Construction may slightly increase solid waste production. Construction activities are subject to waste diversion requirements of AB 939, AB 341, and CALGreen Sections 4.408 and 5.408. Project operations would shift the location of current solid waste disposal but would not result in a net increase in solid waste generated locally or regionally. The Project would be adequately served by existing waste services and would not interfere with waste reduction goals or exceed state or local standards or capacity of infrastructure. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS

ES.3.2 Alternatives to the Proposed Project

Seven alternatives to the proposed project were screened for further evaluation in the EIR; as a result of the screening process, four were retained for analysis in the EIR in addition to the No Project Alternative. All alternatives are discussed in detail in Chapter 5, Alternatives. The analysis concludes that Alternative 2 is the environmentally superior alternative. Table ES-2 summarizes which significant impacts each alternative would reduce.

Table ES-2 Significant Impacts Reduced by Alternatives Considered in the EIR

Alternative	
Alternative 1: Portable Lighting and Portable PA System	▸ **Impact 3.1-3 (Aesthetics, Light, and Glare):** Similar impacts to the proposed project for nighttime lighting and glare. ▸ **Impacts 3.3-2 and 3.3-3 (Archaeological, Historical, and Tribal Cultural Resources):** Similar impacts to the proposed project for unearthing previously undiscovered cultural resources and the potential to affect previously undiscovered human remains. ▸ **Impact 3.4-2 (Biological Resources):** Similar impacts to the proposed project for disturbing nesting birds during construction. ▸ **Impact 3.6-5 (Geology and Soils):** Similar impacts to the proposed project for destroying paleontological resources during construction. ▸ **Impact 3.11-3 (Noise and Vibration):** Substantially reduces noise impacts associated with use of the new public address (PA) system during events at the Dan Albert Stadium. ▸ **Impact 3.12-2 (Transportation):** Similar impacts to the proposed project for traffic hazards during construction.
Alternative 2: Restricted Use	▸ **Impact 3.1-3 (Aesthetics, Light, and Glare):** Substantially reduces impacts compared to the proposed project for nighttime lighting and glare. ▸ **Impacts 3.3-2 and 3.3-3 (Archaeological, Historical, and Tribal Cultural Resources):** Similar impacts to the proposed project for unearthing previously undiscovered cultural resources and the potential to affect previously undiscovered human remains. ▸ **Impact 3.4-2 (Biological Resources):** Similar impacts to the proposed project for disturbing nesting birds during construction. ▸ **Impact 3.6-5 (Geology and Soils):** Similar impacts to the proposed project for destroying paleontological resources during construction. ▸ **Impact 3.11-3 (Noise and Vibration):** Substantially reduces noise impacts associated with use of the new PA system during events at the Dan Albert Stadium. ▸ **Impact 3.12-2 (Transportation):** Similar impacts to the proposed project for traffic hazards during construction.
Alternative 3: Nighttime Curfew	▸ **Impact 3.1-3 (Aesthetics, Light, and Glare):** Substantially reduces impacts compared to the proposed project for nighttime lighting and glare. ▸ **Impacts 3.3-2 and 3.3-3 (Archaeological, Historical, and Tribal Cultural Resources):** Similar impacts to the proposed project for unearthing previously undiscovered cultural resources and the potential to affect previously undiscovered human remains. ▸ **Impact 3.4-2 (Biological Resources):** Similar impacts to the proposed project for disturbing nesting birds during construction. ▸ **Impact 3.6-5 (Geology and Soils):** Similar impacts to the proposed project for destroying paleontological resources during construction. ▸ **Impact 3.11-3 (Noise and Vibration):** Substantially reduces noise impacts associated with crowd noise and use of the new PA system during events at the Dan Albert Stadium. ▸ **Impact 3.12-2 (Transportation):** Similar impacts to the proposed project for traffic hazards during construction.

Alternative	
Alternative 4: No Visitor Bleachers and Portable PA System	▶ **Impact 3.1-3 (Aesthetics, Light, and Glare):** Similar impacts to the proposed project for nighttime lighting and glare. ▶ **Impacts 3.3-2 and 3.3-3 (Archaeological, Historical, and Tribal Cultural Resources):** Potentially greater impacts to the Dan Albert Stadium. Similar impacts to the proposed project for unearthing previously undiscovered cultural resources and the potential to affect previously undiscovered human remains. ▶ **Impact 3.4-2 (Biological Resources):** Less impact than the proposed project for disturbing nesting birds during construction. ▶ **Impact 3.6-5 (Geology and Soils):** Less impact than the proposed project for destroying paleontological resources during construction. ▶ **Impact 3.11-3 (Noise and Vibration):** Substantially reduces noise impacts associated with use of a new PA system during events at the Dan Albert Stadium. ▶ **Impact 3.12-2 (Transportation):** Similar impact than the proposed project for traffic hazards during construction.
Alternative 5: Seasonal Lighting Restrictions and No Non-MPUSD Events	▶ **Impact 3.1-3 (Aesthetics, Light, and Glare):** Substantially reduces impacts compared to the proposed project for nighttime lighting and glare. ▶ **Impacts 3.3-2 and 3.3-3 (Archaeological, Historical, and Tribal Cultural Resources):** Similar impacts to the proposed project for unearthing previously undiscovered cultural resources and the potential to affect previously undiscovered human remains. ▶ **Impact 3.4-2 (Biological Resources):** Similar impacts to the proposed project for disturbing nesting birds during construction. ▶ **Impact 3.6-5 (Geology and Soils):** Similar impacts to the proposed project for destroying paleontological resources during construction. ▶ **Impact 3.11-3 (Noise and Vibration):** Substantially reduces noise impacts associated with use of the new PA system during events at the Dan Albert Stadium. ▶ **Impact 3.12-2 (Transportation):** Similar impacts to the proposed project for traffic hazards during construction.

ES.4 AREAS OF CONTROVERSY

Several areas of potential controversy were identified through the public scoping process and preparation of the Draft EIR. Those include:

- Light pollution associated with permanent lighting, including sky glow
- Light spillage and luminance units
- Frequency of on-site events
- Hazardous materials
- Historic value of Dan Albert Stadium
- Noise from use of the facilities
- Public services associated with facility use
- Parking for events and activities at Dan Albert Stadium
- Safety of public roadways
- Alternatives

These issues are each addressed, as appropriate, in Chapter 1, "Introduction," and Chapter 3, "Environmental Impacts and Mitigation Measures," of this Draft EIR.

ES.5 ISSUES TO BE RESOLVED

The lead agency must decide the following major issues about the proposed project:

- If the mitigation measures in the EIR should be adopted or modified
- Whether to approve the proposed project or an alternative

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1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the environmental impacts of the proposed Monterey High School Stadium Improvements Project. Chapter 2, "Project Description," presents detailed description of the project.

Monterey Peninsula Unified School District (MPUSD), as the lead agency, prepared this Draft EIR in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15000 et seq.).

1.1 PURPOSE AND INTENDED USES OF THIS DRAFT EIR

Pursuant to State CEQA Guidelines Section 15064(f)(1), preparation of an EIR is required when a lead agency determines, based on substantial evidence, that a project may result in a significant adverse environmental impact. An EIR is an informational document used to inform public agencies and the public of the significant environmental effects of a project, identify possible ways to mitigate or avoid the significant effects, and describe a range of reasonable alternatives to the project that could feasibly attain most of the basic project objectives while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

This Draft EIR meets the requirements of a project EIR, as defined by State CEQA Guidelines Section 15161. A project EIR focuses on the changes in the physical environment that would result from the implementation of a project, including its planning, construction, and operation. The MPUSD's intention in preparing a project EIR is that no further environmental analysis would be required for additional discretionary actions, if any, following approval of the project by MPUSD, absent conditions requiring a subsequent EIR, a supplement to the EIR, or an addendum (State CEQA Guidelines Sections 15162–15164).

1.2 SCOPE OF THIS DRAFT EIR

Pursuant to CEQA (Public Resources Code [PRC] Section 21000 et seq.) and CEQA Guidelines Section 15064, the discussion of potential effects on the environment in the EIR shall be focused on those impacts that MPUSD has determined may be potentially significant. The EIR will also evaluate the cumulative impacts of the project when considered in conjunction with other related past, current, and reasonably foreseeable future projects. CEQA requires that the discussion of any significant effect on the environment be limited to substantial, or potentially substantial, adverse changes in physical conditions that exist within the affected area, as defined in PRC Section 21060.5 (statutory definition of "environment"). MPUSD has determined that the project could result in potential environmental impacts in the following topic areas, which are evaluated in the EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation
- Utilities and Service Systems
- Wildfire (included in Hazards and Hazardous Materials)

CEQA allows a lead agency to limit the detail of discussion of the environmental effects that are not considered potentially significant (PRC Section 21100, CCR Sections 15126.2[a] and 15128). Environmental issue areas scoped out of the EIR are listed below with an explanation of why there would not be an impact to these resource areas:

- *Agricultural and Forest Resources:* The project site is part of MHS and does not contain agricultural or forest uses. The City of Monterey General Plan states that there are no agricultural lands within the City (City of Monterey 2016). The project site is designated as urban and built up land under the California Department of Conservation Farmland Monitoring and Mapping Program (California Department of Conservation 2016). There are no Williamson Act contracts on the project site (Monterey County Agricultural Commissioner 2019). The project site is not zoned for agriculture use, forest land, or timberland. Therefore, the project would not impact agricultural or forest resources.
- *Mineral Resources*: The City of Monterey General Plan states that there are no mineral resources of economic value classified under the Surface Mining and Geology Act in Monterey (City of Monterey 2016). Therefore, the project would not impact mineral resources.
- *Population and Housing:* The proposed project would not induce population growth, because it is intended to serve the existing student population. The project would not displace people or housing, because it is located entirely on the campus of MHS. Therefore, there would be no impact to population and housing.
- *Public Services:* The project would not induce population growth that would generate new students in the community or new residents that would require new or physically altered fire and police facilities, school services, or park facilities, because it is intended to serve the existing student population. While additional athletic games, extended practices, and other activities at the stadium may increase the need for police services at Monterey High School, these activities are for the most part already occurring elsewhere. Home football games are currently held at Monterey Peninsula College, and any police service needs would shift to Monterey High School. Practices and other student activities that could extend into the nighttime under the proposed project would not increase policing needs, because they are supervised by MHS staff. Students staying on campus for MHS activities such as athletic practices at Dan Albert Stadium and the lower field would be under adult supervision and engaged in the activities in which they are participating. Other activities utilizing the Dan Albert Stadium are unlikely to be new events that are not currently conducted at another local venue. Therefore, any change in the need for police services in the area would result from shifting the need from elsewhere, and this project would not need expansion of staffing or provision of new physical police facilities.

  It has been suggested that the project may result in an increase in illegal parking near MHS. Parking regulations are enforced by Parking Enforcement Officers from the Parking Division. Parking Enforcement Officers provide services to the community related to parking enforcement. It is not expected that parking enforcement activities will increase substantially such that additional facilities will need to be constructed to accommodate additional levels of service. As a result, any potential increase in illegal parking in the neighborhood is not expected to result in the need for new or altered physical facilities that would result in an impact on the environment. The project itself involves improvements to school recreation facilities, the impacts of which are fully evaluated in this EIR by resource area. Impacts on the environment that could result from a parking deficit during on-site events are discussed in Section 3.12, "Transportation," of this EIR.
- *Recreation:* The project would result in an improvement of existing school facilities, which would divert use from other recreational facilities where MHS athletic activities currently occur. Therefore, the project would not increase the use of existing recreational facilities in a way that substantial physical deterioration of other facilities would occur. The project itself involves improvements to school recreation facilities, the impacts of which are fully evaluated in this EIR by resource area.

1.3 PUBLIC REVIEW PROCESS

A Notice of Preparation (NOP) was distributed to responsible and trustee agencies, nearby property owners, and other interested parties that may have an interest in the project. The NOP was circulated for a 30-day review period from February 7, 2020 to March 9, 2020. The NOP was distributed by mail to property owners with 0.5 miles of the project parcels; this list was obtained from the Monterey County Assessor's office. The NOP was also mailed via certified mail to several state agencies that are trustee agencies. The NOP was also submitted to the Office of Planning and Research State Clearinghouse. A scoping meeting was held on February 26, 2020, starting at 5:30 pm, at the MPUSD District Room, 540 Canyon Del Rey, in Del Rey Oaks. The meeting was also broadcast on local television, with a video recording posted online on the MPUSD website. A court reporter transcribed the scoping meeting presentation and verbal comments. On March 10, 2020, the MPUSD decided to extend the scoping period to April 13, 2020. The notice of the comment extension was provided to those who had submitted scoping letters, to those agencies who received the original NOP, and to the Monterey County Clerk for posting.

The purpose of the NOP was to provide notification that an EIR for the Monterey High School Stadium Improvements project was being prepared and to solicit input on the scope and content of the document. The NOP and responses to the NOP are included in Appendix A of this Draft EIR.

This Draft EIR is being circulated for public review and comment for a 60-day period beginning on November 13, 2020 and ending on January 12, 2021. During this public review period, comments from the general public as well as organizations and agencies on environmental issues may be submitted to MPUSD. Copies of the Draft EIR are available online for review at:

http://the.mpusd.net/MHS-Stadium-Project

The public review period will conclude at 5:00 p.m. on January 12, 2021. All written comments on the Draft EIR should be addressed to:

Ryan Altemeyer, Associate Superintendent, Business Services
Monterey Peninsula Unified School District
700 Pacific Street
Monterey, CA 93942
Email: MontereyHSStadium@ascentenvironmental.com

Please include a subject line referencing the Monterey High School Stadium Improvements project.

MPUSD will hold a public Board meeting during the public review period to accept comments from the general public, organizations, and agencies. The District has taken steps to utilize technology to encourage full public participation during its meetings in order to comply with public health guidance during the COVID-19 pandemic. Accordingly, this Special Board Meeting of the Board of Trustees of the District to be held on December 17, 2020 at 5:30 p.m. will be accessible online through the following option:

Livestream: http://bit.ly/MPUSD-BoardMeetingLive

Zoom: https://mpusd-k12-ca-us.zoom.us/s/93819944823

The District will also provide links to these options on the MPUSD webpage. While we strongly encourage members of the public to participate through the electronic access above, we understand that some members of the public may either not have access to the technology or are not comfortable with this method. Therefore, members of the public who want to physically attend may come to 540 Canyon Del Rey Blvd, Del Rey Oaks, CA 93940 where the meeting will be broadcast live with some members of the staff and Board present. The District does NOT make any representation whether your physical attendance at the meeting may be in violation of the Orders from the Monterey County Health Department to shelter-in-place. We urge you to contact the Health Department if you have any concerns in that regard.

In order to protect the health and safety of the public as well as Board members and staff, we will be enforcing physical distancing of at least 6 feet from others. In addition, we ask all persons entering the room to use hand sanitizers that will be left at the entrance before entering and upon leaving the broadcast room.

If you are attending the meeting via web access and wish to make a comment on the Draft EIR at the meeting, you have two options: written comment submitted in advance of the Board meeting or oral comment delivered during the Board meeting. Further details regarding both options appear below. In addition to these two options for making comment via web access, the Board will also accept live public comment from persons attending the meeting in person.

If you wish to submit a written comment that will be read during the Board meeting, you must submit your comments by e-mail to: denmunoz@mpusd.k12.ca.us. Please be aware that written comments, including your name, will become public information. All written comments must be received by e-mail no later than 4:30 pm on December 17, 2020. Comments received by this time will be read aloud by a staff member at the meeting, provided that such comments may be read within the normal 3 minutes allotted to each speaker. Any portion of your comment extending past 3 minutes may not be read aloud due to time restrictions, but will be considered as a comment on the draft EIR. If a written comment on is received after 4:30 pm on December 17, 2020, efforts will be made to read your comment into the record. However, staff cannot guarantee that written comments received after 4:30 pm on December 17, 2020 will be read at the meeting. All written comments will be treated as written comments on the Draft EIR.

If you wish to make an oral public comment, you must access the Zoom link provided above (not the livestream). Participants wishing to make oral public comment may so indicate by using the "Raise Hand" feature in Zoom. The meeting facilitator will call on participants wishing to comment. All oral public comment is limited to 3 minutes per member of the public.

Upon completion of the public review period, a Final EIR (Final EIR) will be prepared that will include public comments on the Draft EIR received during the public review period, responses to those comments, and any revisions to the Draft EIR made in response to public comments. The Draft EIR and Final EIR will comprise the EIR for the project.

Before approving the project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency. After certification of the EIR, the MPUSD will make a separate decision on whether to approve the project or an alternative to the project.

1.4 DRAFT EIR ORGANIZATION

This Draft EIR is organized into chapters, as identified and briefly described below:

- "Executive Summary": This chapter introduces the Monterey High School Stadium Improvements project; provides a summary of the environmental review process, effects found not to be significant, project alternatives, and key environmental issues; and lists significant impacts and mitigation measures to reduce significant impacts to less-than-significant levels.
- Chapter 1, "Introduction": This chapter provides a description of the lead and responsible agencies, the legal authority and purpose for the document, and the public review process.
- Chapter 2, "Project Description": This chapter describes the location, background, and objectives for the project and describes the project elements in detail.
- Chapter 3, "Environmental Impacts and Mitigation Measures": The sections within this chapter evaluate the expected environmental impacts generated by the project, arranged by subject area (e.g., Land Use, Hydrology, Water Quality, etc.). Within each subsection of Chapter 3, the regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions after development of the project are then evaluated for each subject area. For any significant or potentially significant impact that would result from project implementation, mitigation measures are presented and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially within each section (e.g.,

Impact 3.2-1, Impact 3.2-2, etc.). Any proposed mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 3.2-2 would be Mitigation Measure 3.2-2.

- Chapter 4, "Cumulative Impacts": This chapter provides information required by CEQA regarding cumulative impacts that would result from implementation of the project together with other past, present, and probable future projects.
- Chapter 5, "Alternatives": This chapter evaluates alternatives to the project, including alternatives considered but eliminated from further consideration, the No Project Alternative, and alternative development options. The environmentally superior alternative is identified.
- Chapter 6, "Other CEQA Sections": This chapter evaluates growth-inducing impacts and irreversible and irretrievable commitment of resources and discloses any significant and unavoidable adverse impacts.
- Chapter 7, "Report Preparers": This chapter identifies the preparers of the document.
- Chapter 8, "References": This chapter identifies the organizations and persons consulted during preparation of this Draft EIR and the documents and individuals used as sources for the analysis.

1.5 STANDARD TERMINOLOGY

This Draft EIR uses the following standard terminology:

- "No impact" means no change from existing conditions (no mitigation is needed).
- "Less-than-significant impact" means no substantial adverse change in the physical environment (no mitigation is needed).
- "Potentially significant impact" means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).
- "Significant impact" means an impact that would cause a substantial adverse change in the physical environment (mitigation is proposed by the lead agency).
- "Significant and unavoidable impact" means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even after the implementation of all feasible mitigation.

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2 PROJECT DESCRIPTION

Monterey Peninsula School District (MPUSD or District) proposes to implement several improvements to the athletic facilities at Monterey High School (MHS) in the City of Monterey, California. In summary, the proposed project includes the following elements:

- **Lower field:** An existing dirt area adjacent to the Dan Albert Stadium that is occasionally used for overflow parking during events would be improved for use as a softball/multi-use field. The surface of the multi-use field would be synthetic turf. Additionally, a new approximately 1,920-square-foot weight room/team room building would be constructed. Improvements would also be made to a track and field event area.
- **Stadium Lights:** New field lighting would be installed at the Dan Albert Stadium; it would consist of four 70-foot-tall light standards.
- **Existing home bleachers and press box:** Americans with Disabilities Act-compliant seating spaces, guard/handrails, and other renovations would be made to the existing home bleachers at Dan Albert Stadium, in accordance with standards for restoration and protection of a historical resource. A pre-fabricated press box would replace the temporary press box. A new public address system is proposed. The capacity of the home bleachers would not change.
- **Visitor bleachers:** New 300-seat visitor bleachers would be installed at the Dan Albert Stadium, opposite the existing seating area to provide separation between the home team and visiting team fans.

Additional detail on elements of the project are provided in Section 2.3.1, Proposed Facilities.

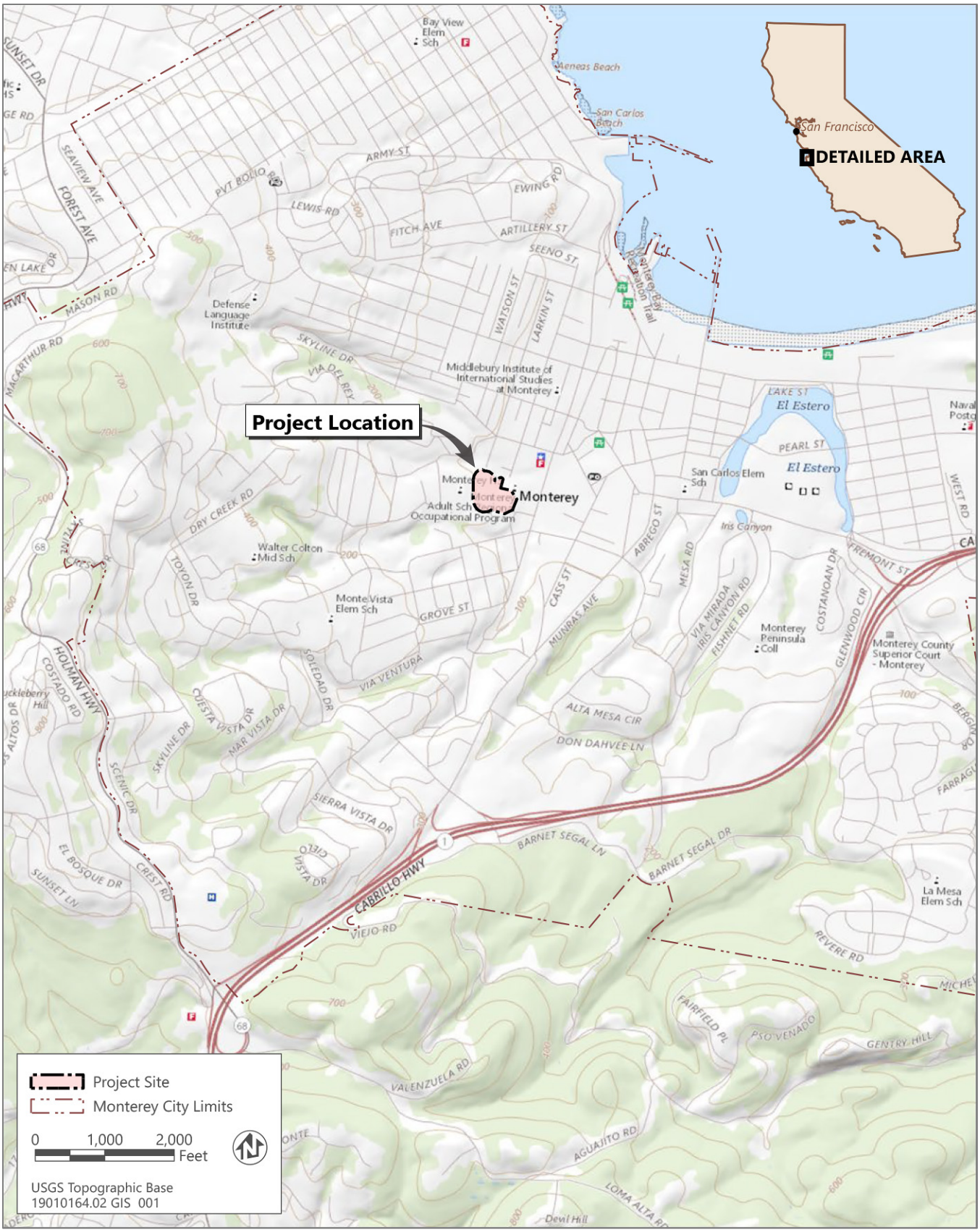
2.1 PROJECT LOCATION AND LAND USE

The project site for the proposed project is entirely within the MHS campus. MHS is located in the City of Monterey, California (Figure 2-1). Areas north, south, and west of MHS are residential neighborhoods, while there are commercial uses east of MHS. Regional access to MHS is provided via State Route (SR) 1 and SR 68. Vehicle access to MHS is provided via Herrmann Drive, Larkin Street, Logan Lane, and Martin Street. The project site is located on approximately 5.7 acres of the eastern portion of the 12.3-acre MHS campus. The project site contains two areas: the 3.5-acre Dan Albert Stadium and the adjacent 2.2-acre lower field (Figure 2-2).

The City of Monterey General Plan Land Use Map designates the MHS as Public/Semi-Public. This designation applies to public and private facilities operated to serve the general public, including public and private schools, military facilities, cemetery, parking, hospitals, museums, and historic buildings (City of Monterey 2010). The project site is located within the R-1 Residential Single-Family (R-1) Zoning District. The R-1 Zoning District provides for single-family detached homes in neighborhood at densities ranging from less than two dwelling units per acre (du/acre) to eight du/acre. Public facilities, including public schools, are permitted within this Zoning District.

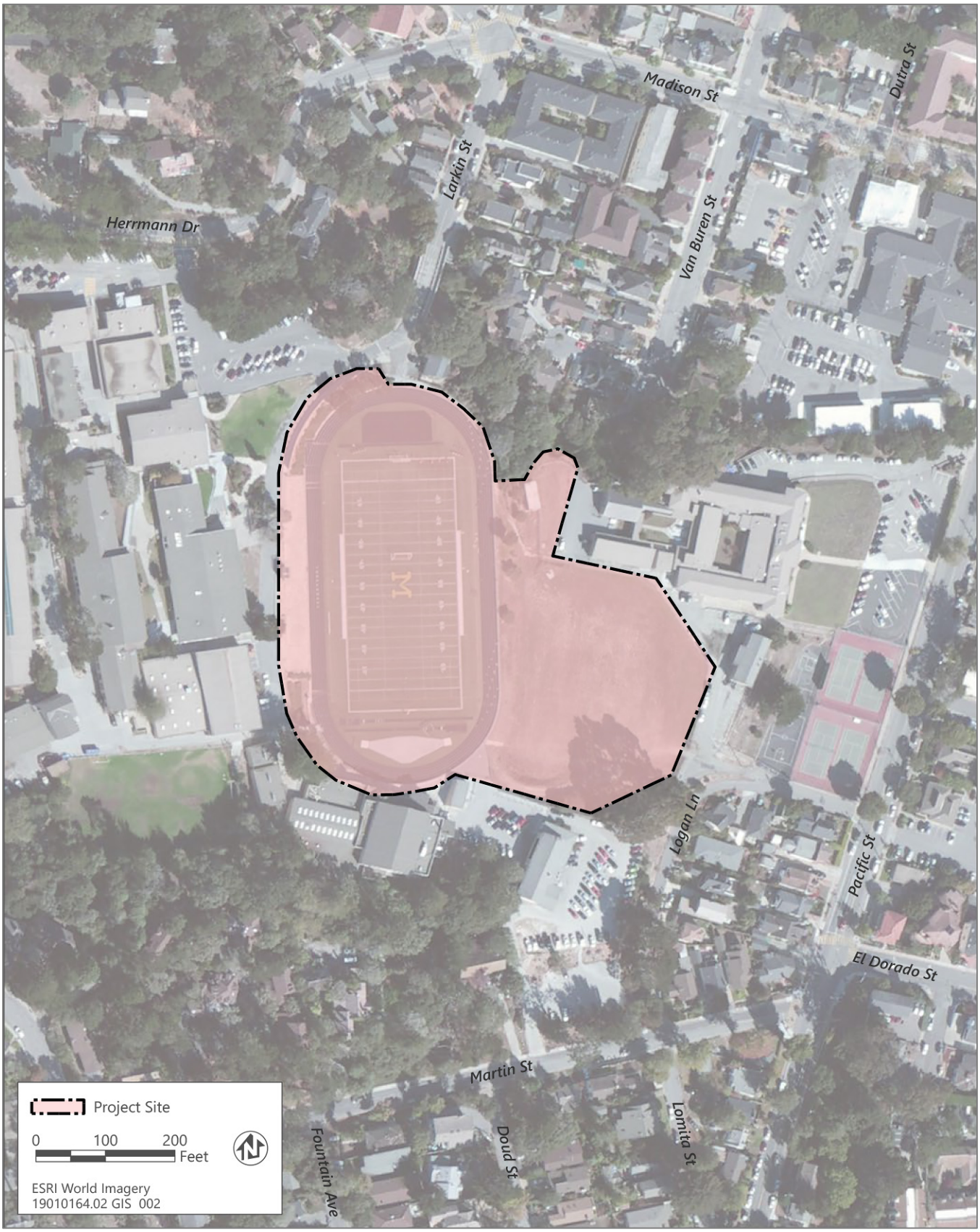
2.2 EXISTING FACILITIES AND USE

During the 2017-2018 school year, MHS served 1,306 students and employed 67 teachers (Ed Data 2020). The MHS campus includes 59 classrooms, surface parking (with 147 parking spaces), the Dan Albert Stadium, an undeveloped area currently used for occasional overflow parking (lower field), and other school support facilities (MPUSD 2010; MPUSD 2018). The MHS campus is 12.3 acres, far below the current minimum size for comprehensive high schools in California. The proposed project would be located at the Dan Albert Stadium and adjacent undeveloped area. Constructed in 1928, the Dan Albert Stadium features an athletic field with synthetic turf, a general seating area with stone bleachers, and temporary press box. A running track encircles the athletic field. The seating area is on the west side of the stadium and provides no seating assignments or other separation of home team fans and visiting team fans. The temporary press box is located on the western edge of the athletic field directly behind the stone bleachers.



Source: adapted by Ascent Environmental in 2020

Figure 2-1 Project Location



Source: adapted by Ascent Environmental in 2020

Figure 2-2 Project Site

MHS uses the stadium for MHS team games, athletic team practices, and physical education classes. Table 2-1 provides a summary of existing on-site sporting events and the number of participants. For events at Dan Albert Stadium where fans primarily sit in the bleachers, the current seating capacity is approximately 1,600 and the field capacity is 100, for a total occupancy of approximately 1,700.

For larger events that use the field for attendee seating, such as graduation, the capacity is approximately 3,000 people. Ticket sales at football games in the most recent season ranged from 341 to 502 tickets. During evening games in seasons prior to 2018–2019, MHS has procured temporary field lighting to illuminate the games. On average, temporary field lighting was used to illuminate 5 evening games annually over 9 years. In 2019, Peninsula Sports Incorporated, the governing body for referees for the Monterey area, would no longer referee or certify games that used temporary lighting due to safety concerns of the exhaust fumes and unsatisfactory lighting conditions. Additionally, active construction on the MHS campus was occurring adjacent to Dan Albert Stadium during the 2019 season. Accordingly, during the 2019 season, evening home football games were played at the nearby Monterey Peninsula College football stadium.

The lower field is unpaved and relatively flat with slightly sloped edges. There is a paved parking lot adjacent to this area. The MHS track and field shot put circle and discus cage are located on the northwest corner of the lower field. MHS has used the lower field as an informal athletic practice area, a softball field, and overflow parking lot. When used for overflow parking, the lower field can accommodate approximately 100 vehicles.

Table 2-1 Dan Albert Stadium Existing (2018 – 2019) Sporting Event Schedule

Sporting Event	Days of the Week	Timing		Number of Participants	Location (2018 – 2019)
		Start	End		
Fall Sports (June through November)					
Physical Education/ROTC	Monday through Friday	8:00 am	3:05 pm	80	Dan Albert Stadium
Football Weekday Practice	Monday through Thursday	3:30 pm	6:00 pm*	90 to 100	Dan Albert Stadium
Football Weekday Games	Friday	3:00 pm	10:00 pm	90 to 100	Monterey Peninsula College
Football Weekend Practice	Saturday	8:00 am	12:00 pm	90 to 100	Dan Albert Stadium
Cross County	Monday through Friday	3:15 pm	5:00 pm*	50	Dan Albert Stadium (Track Only)
Field Hockey Practice	Monday through Friday	3:20 pm	5:00 pm*	80	Dan Albert Stadium
Field Hockey Games	Varies	3:30 pm	6:00 pm*	80	Dan Albert Stadium
Water Polo (conditioning)	Monday through Friday	3:20 pm	4:00 pm	40	Dan Albert Stadium (Track Only)
Winter Sports (November through February)					
Physical Education/ROTC	Monday through Friday	8:00 am	3:05 pm	80	Dan Albert Stadium
Boys and Girls Soccer	Monday through Friday	3:30 pm	Sunset	90 to 100	Dan Albert Stadium
Wrestling (conditioning)	Monday through Friday	3:15 pm	5:00 pm*	60	Dan Albert Stadium (Track Only)
Spring Sports (February through May)					
Physical Education/ROTC	Monday through Friday	8:00 am	3:05 pm	80	Dan Albert Stadium
Track and Field	Monday through Friday	3:30 pm	5:00 pm	60	Dan Albert Stadium
Swimming and Diving (conditioning)	Monday through Friday	3:15 pm	4:00 pm	60	Dan Albert Stadium (Track Only)
Girls Lacrosse Practice	Monday through Friday	3:20 pm	5:00 pm	70	Dan Albert Stadium
Girls Lacrosse Games	Varies	3:30 pm	6:00 pm*	70	Dan Albert Stadium

Notes: ROTC = Reserve Officer Training Corps

* = practices end before sunset if sunset occurs before scheduled end time.

Source: MPUSD 2019.

2.3 PROJECT OBJECTIVES

MPUSD identified the following objectives to guide development of the proposed project:

- **Improve on-campus athletic facilities at Monterey High School for athlete practice and games to enhance opportunities for after-school athletic and extracurricular activities for students.** MHS currently has one field that hosts all athletic activities. At some times, athletes for multiple sports, such as field hockey, football, water polo, and cheerleading, are together, all sharing the Dan Albert Stadium field, which can restrict the options for student athletes to practice because too many athletes on the field at once can lead to safety issues. Therefore, the District proposes to construct new and expand existing facilities to allow for more practices to safely occur at once and to expand the options that student athletes have for practicing, game play, and conditioning. Additionally, the Dan Albert Stadium does not have facilities that are compliant with the Americans with Disabilities Act (ADA), and the District proposes to upgrade facilities so that spectators in need of ADA-compliant access are able to attend games and other events. An upgraded public address system would also facilitate announcements, some of which are mandated by the Central Coast Section Playoff Bylaws. This will contribute to a more robust student athlete program at MHS.
- **Facilitate night-time athletic events and practices at the Dan Albert Stadium.** Use of temporary night lighting is currently an option at the Dan Albert Stadium for certain MHS activities, including practices and some games, occurring outside of the daytime. The temporary lighting is insufficient and inadequate for a number of reasons, and the District seeks a more efficient, effective, and well-designed option than temporary lighting. Some drawbacks of the temporary lighting included unpleasant odors and noise from generators. The temporary lighting is also insufficient for safety reasons. For instance, Peninsula Sports, Inc., will not provide referees for football games held under the temporary lighting at Dan Albert Stadium. Currently, MHS holds night-time football games at the Monterey Peninsula College, which requires payment of rental fees and also moves athletic activities off campus, which is disruptive to academic activities. Additionally, soccer games must end early when they go into evening hours due to lack of lighting. The District, therefore, seeks to find a better option for hosting night-time MHS activities on the MHS campus.
- **Provide adequate visitor seating separated from the home team seating area at the Dan Albert Stadium.** The existing seating at the Dan Albert Stadium does not provide separation of home and visitor spectators. Seating MHS home fans together boosts school pride and reduces conflicts, which results in a better game experience for all attendees and enhanced safety for spectators. The Pacific Coast Athletic League Commissioner has communicated to MPUSD that separate sections for home and visiting fans are important for fan safety and crowd control. Therefore, the District is proposing a seating configuration at the stadium that separates home and visiting team fans.

2.4 PROPOSED FACILITIES AND USE

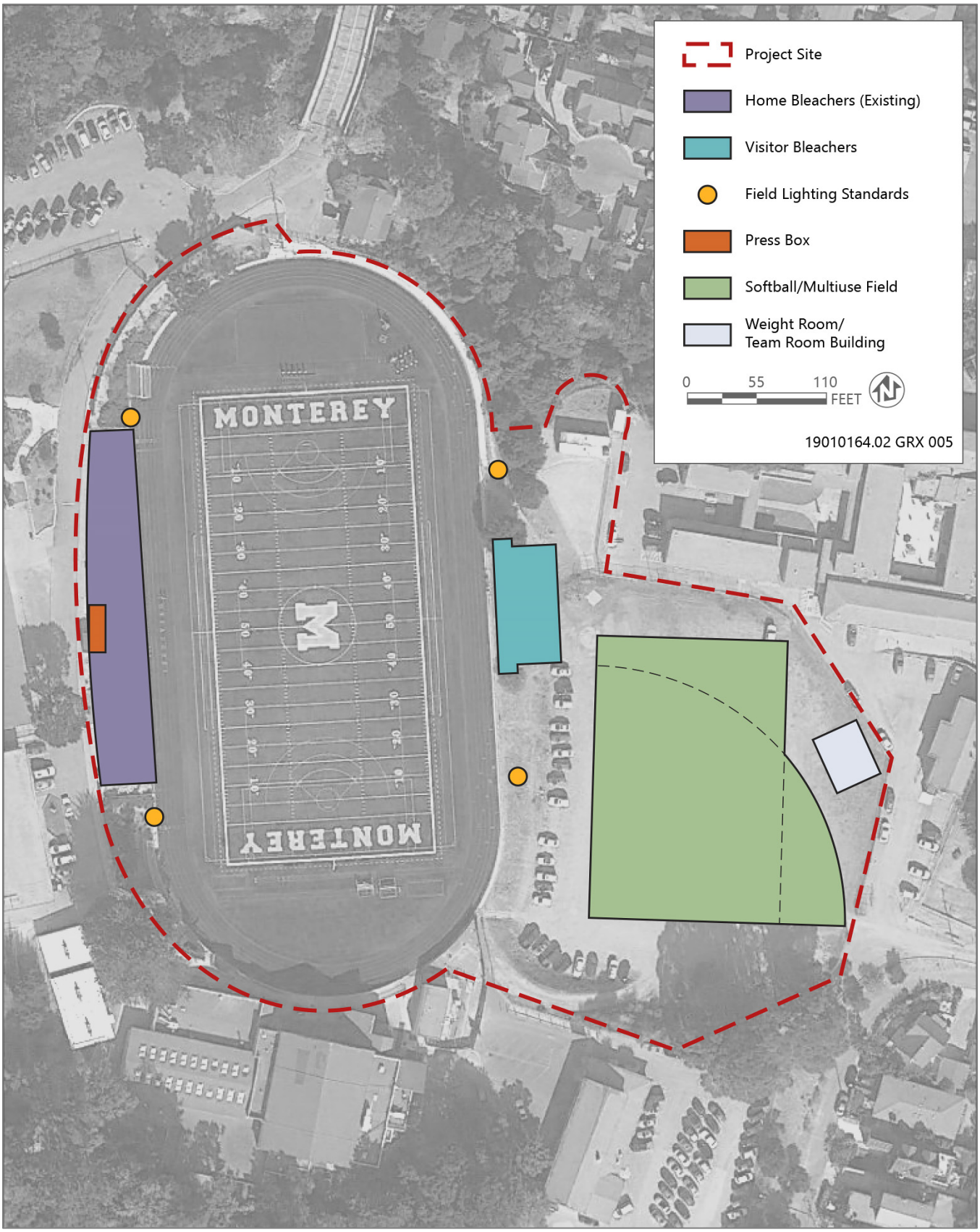
2.4.1 Proposed Facilities

The proposed project would include new lower field facilities and improvements to Dan Albert Stadium.

LOWER FIELD

A softball/multiuse field would be constructed adjacent to and east of the Dan Albert Stadium. The surface of the multi-use field would be synthetic turf and would accommodate football, lacrosse, soccer, softball, and discus sporting activities. Three five-row bleachers would be installed behind the home plate area between the home and visitor dugouts, providing seating for up to 150 spectators. A scoreboard would also be constructed, as would drainage infrastructure (Figure 2-3).

Additionally, a new 1,920-square-foot weight room/team room building would be constructed in this area using a modular building on a concrete foundation. Exterior height of the modular building would measure approximately 11 feet. The modular building would include two restroom facilities and space for a weight room, team room, and equipment storage area.



Source: Created by Ascent Environmental in 2020

Figure 2-3 Project Site Schematic of Proposed Facilities

To make room for proposed facilities on the lower field, the fence that wraps along the eastern edge, concrete stairs and handrails in the northwest corner, and discus cage would be removed. The paved parking lot located directly to the southwest of the Dan Albert Stadium would be restriped for parking; depending on final design, restriping would accommodate up to 19 vehicles, and several would be ADA accessible.

DAN ALBERT STADIUM

Proposed improvements at Dan Albert Stadium would include installation of field lighting, modifications to the existing home bleachers, addition of visitor bleachers, and a new pre-fabricated press box (Figure 2-3).

Field Lighting and PA System

The project would install new permanent lighting at the Dan Albert Stadium for nighttime athletic activities and football games, which currently are not held at the stadium. The project would also have limited safety-related light fixtures on the lower field, such as lights to illuminate areas adjacent to the proposed weight room and along pedestrian pathways. Field lighting would not be installed at the lower field. The physical features and use restrictions associated with the proposed field lighting are summarized in Table 2-2.

Table 2-2 Proposed Permanent Lighting Characteristics

Lighting Features	Details
Number of Field Light Standards	▶ Four 70-foot field light standards with 2 on each side of the filed, located generally on the four corners of Dan Albert Stadium. Light fixtures pointed downward at the field ▶ Two 20-foot bleacher light standards with one located at the home bleachers and one located at the visitor bleachers ▶ One light fixture mounted above the weight room door
Height of Light Fixtures mounted on the 70-foot Light Standards	▶ Field lights: approximately 70 feet ▶ Egress lighting: approximately 60 feet ▶ Lower-output LED luminaires: approximately 16 feet
Height of Light Fixtures mounted on the 20-foot Light Standards	Home and Visitor Bleacher lights: approximately 20 feet
Height of Weight Room Light	Weight Room Door Light, approximately 10 feet
Lighting Type	Musco Light-Structure System LED
Use Restrictions	Evening athletic games and evening athletic practices. Use of lighting during and following athletic practices would generally end by 8:00 p.m. Most athletic games would end by 10:00 p.m., with lighting potentially remaining on after 10:00 p.m. to facilitate safe crowd exiting and for clean-up and other similar activities after game completion.

LED: Light-emitting diode

Source: Musco Lighting 2020

As shown in Table 2-2, downward-facing luminaires (i.e., light fixtures) would be affixed at a height of approximately 70 feet on each pole to illuminate the stadium field during athletic competitions, practices, and other events. A second set of lower-output LED luminaires would be installed up to 16 feet to illuminate airborne objects, such as footballs during punts and kickoffs and soccer balls. Additional lights would be installed to illuminate pathways along the bleachers and lights along pathways leading to ingress and egress locations. Lighting designs are contained in Appendix B. A public address (PA) system would also be installed, with speakers attached on the light standards for game announcements.

Existing Home Bleachers and Press Box

The proposed project would remove the existing temporary press box. Twelve ADA-compliant seating spaces, guard/handrails, and a concrete curb would be added to the top walkway area of the existing home bleachers. A pre-fabricated 192-square-foot press box, to replace the temporary press box, would be constructed directly behind the stone bleachers at midfield. Proposed improvements to the home bleachers were designed to retain the character of the Carmel stone by minimizing the number of Carmel stone that would be disturbed, recreating the original mortar mixture, replacing mason stones removed as part of the proposed project, and salvaging remaining stones for future use.

Visitor Bleachers

Aluminum bleachers would be added to the east side of the field for visiting team fans to separate home fans and visiting fans. The bleachers would accommodate 300 spectators. A perimeter walkway, concrete retaining wall with a surrounding 6-foot fence, and a 42-foot fence separating the stadium and proposed athletic field would also be located on the east side of the stadium. While over 300 seats would be added, games at the school have generally not reached capacity, and addition of seats is not expected to attract more attendees than existing games.

LANDSCAPING

The project would remove three oak trees on the lower field that separate the Dan Albert Stadium from the dirt lot and add landscaped areas along the perimeter of the project site. Landscaped areas would include a mixture of trees, shrubs, and other plants, such as Catalina ironwood, carpet manzanita and purple red flax. This landscaping would be water efficient.

UTILITIES

Utility connections for electricity for the scoreboard, water for restroom facilities, and a drinking fountain would be installed onsite with connections to existing infrastructure that currently serve the project site. No new offsite utility facilities or utility relocations would be required to serve the project.

2.4.2 Proposed Use

The proposed project would provide a well-lit sport field and allow for expanded evening-hour games and sport activities. MHS proposes to expand the timing of field hockey, soccer, and track and field by allowing evening-hour use, and add weight lifting/conditioning as a new sports activity in the proposed weight room. The timing of all other sporting activities would remain the same. Table 2-3 provides a summary of the anticipated use of the athletic facilities after improvements are made. No uses of the Dan Albert Stadium or Lower Field are proposed before sunrise.

Table 2-3 Proposed Sporting Event Schedule

Sporting Event	Days of the Week	Timing		Number of Participants	Location	Estimated No. Evening Games Per Year
		Start	End			
Fall Sports (June through November)						
Physical Education/ROTC**	Monday through Friday	8:00 am	3:05 pm	80 per period	Dan Albert Stadium/Proposed Lower Field	na
Football Weekday Practice***	Monday through Thursday	3:30 pm	6:30 pm	90 to 100	Dan Albert Stadium/Proposed Lower Field	na
Football Weekend Practice*	Saturday	8:00 am	12:00 pm	90 to 100	Dan Albert Stadium/Proposed Lower Field	na

Sporting Event	Days of the Week	Timing		Number of Participants	Location	Estimated No. Evening Games Per Year
		Start	End			
Football Weekday Games***	Friday	3:00 pm	10:00 pm	90 to 100	Dan Albert Stadium	5
Football Weekend Games*	Saturday	8:00 am	5:00 pm	90 to 100	Dan Albert Stadium	na
Cross Country**	Monday through Friday	3:15 pm	5:00 pm	50	Dan Albert Stadium (Track Only)	na
Girls' Field Hockey Practice**	Monday through Friday	3:20 pm	5:30 pm	80	Dan Albert Stadium/Proposed Lower Field	na
Girls' Field Hockey Games***	Varies	3:30 pm	8:00 pm	80	Dan Albert Stadium	4
Water Polo (conditioning)*	Monday through Friday	3:20 pm	4:00 pm	40	Dan Albert Stadium (Track Only)	na
Weight and Conditioning	Monday through Friday	8:00 am	5:00 pm	30 to 50	Proposed Weight Room	na
Winter Sports (November through February)						
Physical Education/ROTC*	Monday through Friday	8:00 am	3:05 pm	80	Dan Albert Stadium	na
Boys and Girls Soccer Practice***	Monday through Friday	3:30 pm	6:00 pm	90 to 100	Dan Albert Stadium/Proposed Lower Field	na
Boys' and Girls' Soccer Games***	Varies	3:30 pm	8:00 pm	90 to 100	Dan Albert Stadium	4 (boys') 4 (girls')
Weight and Conditioning	Monday through Friday	3:20 pm	5:00 pm	30 to 50	Proposed Weight Room	na
Wrestling (conditioning)	Monday through Friday	3:15 pm	5:00 pm	60	Dan Albert Stadium (Track Only)	na
Spring Sports (February through May)						
Physical Education/ROTC**	Monday through Friday	8:00 am	3:05 pm	80 per period	Dan Albert Stadium/Proposed Lower Field	na
Track and Field***	Monday through Friday	3:30 pm	6:00 pm	60	Dan Albert Stadium	na
Girls' Lacrosse Practice*	Monday through Friday	3:20 pm	5:00 pm	70	Dan Albert Stadium	na
Girls' Lacrosse Games***	Varies	3:30 pm	8:00 pm	70	Dan Albert Stadium	4
Swimming and Diving (conditioning)	Monday through Friday	3:15 pm	4:00 pm	60	Dan Albert Stadium (Track Only)	na
Weight and Conditioning	Monday through Friday	3:20 pm	5:00 pm	30 to 50	Proposed Weight Room	na
Softball practices and games**	Monday through Friday	3:20 pm	6:30 pm	30 to 50	Proposed Lower Field	12

* = no change from current activities

** no change from current activities other than may occur in a different location

*** may extend past sunset

Source: MPUSD 2019.

Depending on the team records, some sports playoff games may also occur at Dan Albert Stadium, including at night. However, it is uncertain from year to year whether teams will make playoffs and whether those games will be home or away games. Additionally, it is not anticipated that the proposed project's increase in total seating at Dan Albert Stadium would boost attendance. Historic attendance levels at football games, which are the most popular athletic events, are less than half of existing stadium seating. Ticket sales at football games in the most recent season ranged from 341 to 502 tickets. Although football games occurred at MPC in the baseline year (2018–2019 season), the football stadium at MPC has a capacity of 3,000, also far above the maximum attendance for MHS football games and again indicating that seating capacity is not a limiting factor for game attendance. District staff have indicated that attendance increases most noticeably if the opposing team and their supporters are not traveling far; teams traveling from outside the region are less likely to bring large crowds. Even when games feature local rivalries, the current seating configuration has not been sold out. Therefore, while overall seating capacity will be increased due to various considerations, the addition of seats is not expected to attract more attendees than currently. In summary, the existing seating capacity has not been exceeded in the past and so cannot be said to have constrained past attendance. Therefore, increasing total seating is not expected to increase future attendance, which is in fact expected to remain the same as it has in the baseline year.

Occasionally, games may go beyond their scheduled end time because of gameplay taking longer than anticipated. The marching band also uses the outdoor facilities and would continue to use them, but these activities would not change from current use. The Civic Center Act provides that school districts may grant the use of school facilities and grounds upon certain terms and conditions deemed proper by the governing board and subject to specified limitations, requirements, and restrictions. While the public may rent facilities according to these limitations, it is difficult to determine which events and activities may occur and when because entities other than MPUSD would propose other events and activities. The use of the MHS facilities for public nighttime events is unlikely to generate additional events in the area; instead, already-existing events would have an additional venue to choose from within the City.

2.5 CONSTRUCTION

Construction is anticipated to begin around summer 2021 and occur over about 11 months. Construction crews would include up to 150 personnel, who would primarily access the site via Pacific Street and Logan Lane. Construction vehicles, equipment, and materials would be stored on the project site. The primary types of construction equipment would consist of a scraper/blade, backhoes, and rollers. Construction would occur 7:00 am to 7:00 pm weekdays and 8:00 am to 6:00 pm on Saturdays and 10:00 am to 5:00 pm Sundays. Grading activities on the project site would encompass 109,753 square feet. Some excavation would be needed for installation of the light standards.

2.6 PROJECT APPROVALS

As the CEQA lead agency, MPUSD has the primary authority for project approval. However, the proposed project may require approvals by the following state and local agencies, including the Division of the State Architect (DSA) (Approval of Construction Drawings) and the Central Coast Regional Water Quality Control Board (National Pollution Discharge Elimination permit and construction stormwater permit). The DSA approval would be ministerial and, therefore, would not require CEQA compliance. The water board, as a CEQA responsible agency, would rely on the analysis in this EIR for consideration of its permit.

3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

APPROACH TO THE ENVIRONMENTAL ANALYSIS

This draft environmental impact report (Draft EIR) evaluates and discloses the environmental impacts associated with the proposed Monterey High School Stadium Improvements project, in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulation, Title 14, Chapter 3, Section 1500, et seq.). Sections 3.1 through 3.13 of this Draft EIR present a discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the project, mitigation measures for significant or potentially significant effects to reduce the level of impact, and residual level of significance after application of mitigation (including impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of the environmental topics identified for review in the Notice of Preparation (NOP) prepared for the project (see Appendix A of this Draft EIR). Chapter 4 of this Draft EIR, "Cumulative Impacts," presents an analysis of the project's impacts considered together with other past, present, and probable future projects producing related impacts, as required by State CEQA Guidelines Section 15130. Chapter 5, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the proposed project, as required by State CEQA Guidelines Section 15126.6. Chapter 6, "Other CEQA Sections," includes an analysis of the project's growth inducing impacts, as required by CEQA Section 21100(b)(5).

Sections 3.1 through 3.13 of this Draft EIR each include the following components.

Regulatory Background: This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Regulations originating from the federal, state, and local levels are each discussed as appropriate.

Existing Conditions: This subsection presents the existing environmental conditions on the project site and in the surrounding area as appropriate, in accordance with State CEQA Guidelines Section 15125. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The extent of the environmental setting area evaluated (the project study area) differs among resources, depending on the locations where impacts would be expected. For example, noise impacts resulting from the proposed project are assessed for the project site and areas surrounding the project site, whereas cultural resource impacts from the proposed project are assessed for the project site only.

Environmental Impacts and Mitigation Measures: This subsection presents thresholds of significance and discusses potentially significant effects of the project on the existing environment, including the environment beyond the project boundaries, in accordance with State CEQA Guidelines Section 15126.2. The methodology for impact analysis is described, including technical studies upon which the analyses rely. The thresholds of significance are defined. Project impacts and mitigation measures are numbered sequentially in each subsection (Impact 3.2-1, Impact 3.2-2, Impact 3.2-3, etc.). A summary impact statement precedes a more detailed discussion of the environmental impact. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. The determination of level of significance of the impact is defined in bold text. A "less-than-significant" impact is one that would not result in a substantial adverse change in the physical environment. A "potentially significant" impact or "significant" impact is one that would result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation. Mitigation measures are identified, to the extent feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts, in accordance with the State CEQA Guidelines Section 15126.4. Unless otherwise noted, the mitigation measures presented are proposed in the EIR by the lead agency to adopt as conditions of approval.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement as part of the project definition, leaving little discretion in its implementation, and would avoid an impact or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before determining impact significance. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how they are accomplished, or have a substantial compensatory component, the level of significance is determined before applying the influence of the regulatory requirements. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to less- than-significant levels. Significant-and-unavoidable impacts are identified as appropriate in accordance with State CEQA Guidelines Section 15126.2(b). Significant-and-unavoidable impacts are also summarized in Chapter 6, "Other CEQA Sections."

References: The full references associated with the parenthetical references found throughout Sections 3.1 through 3.16 can be found in Chapter 8, "References," organized by section number.

3.1 AESTHETICS, LIGHT, AND GLARE

This section evaluates the potential environmental impacts on aesthetics and visual resources, including light and glare conditions. It describes the existing visual character of the project area and identifies the state and local plans, policies, and regulations applicable to the project. The analysis identifies potential impacts of the project and identifies mitigation measures, where needed and feasible, for reducing environmental impacts.

3.1.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to aesthetics, light, and glare are applicable or relevant to the project.

STATE

State Scenic Highways Program

The California Scenic Highways Program was created by the California Scenic Highway Law in 1963 with the purpose of preserving and protecting scenic highway corridors from any change that would diminish the aesthetic value of lands adjacent to highways. State Scenic Highways are those highways that are either officially designated by Caltrans or are eligible for designation. The statewide system of scenic highways is part of the Master Plan of State Highways Eligible for Official State Designation as Scenic Highways. Scenic highway nominations are evaluated using the following criteria:

- the proposed scenic highway is principally within an unspoiled native habitat and showcases the unique aspects of the landscape, agriculture, or man-made water features;
- existing visual intrusions do not significantly impact the scenic corridor;
- strong local support for the proposed scenic highway designation is demonstrated; and
- the length of the proposed scenic highway is not short or segmented.

LOCAL

City of Monterey General Plan

The City of Monterey General Plan contains the following goals and policies, organized by element, that pertain to aesthetics resources and are relevant to this analysis:

Urban Design Element

GOAL f.1: Campuses: Maintain large campuses as open space amenities within Monterey (e.g., Monterey Peninsula College, Naval Postgraduate School, Defense Language Institute, Monterey Peninsula Unified School District, and private school and college sites). Fencing and walls on these large sites should be screened by landscape elements, rather than being placed between landscape elements and streets or vistas.

- **Policy f.9:** Discourage high levels of ambient light and maintain night skies where stars can be seen.

Monterey City Code

Section 38-111 of the Monterey City Code includes performance standards applicable to all use classifications in all zoning districts. Pursuant to Section 38-111(D)(2), all project lighting shall be screened so the light source will not be visible off site.

3.1.2 Environmental Setting

Visual resources addressed in this analysis include natural and constructed features contributing to the aesthetic quality of the landscape's appearance that can be seen from a public viewpoint. Scenic resources can include natural open space, interesting topographic formations, and intact natural vistas. Natural landforms and landscapes, such as hills or mountains, native woodlands, lakes, streams, and coastlines, are often considered to be scenic resources. Scenic resources also can include urban open spaces, urban forests, and the built environment. Examples of these include public parks, public open space, nature centers and preserves. Historic resources and distinctive architectural features can also be important to community aesthetics. The environmental setting for aesthetic resources includes the characteristics called out in the CEQA Appendix G Environmental Checklist – visual character and quality, scenic corridors and vistas, scenic highways and light and glare.

VISUAL CHARACTER AND QUALITY

Visual character is determined based on the dominant land use and visual elements of the area. Visual quality is the overall visual impression or attractiveness of an area as determined by the particular landscape characteristics, including landforms, rock forms, water features, and vegetation patterns. The City of Monterey is bounded by pine-covered ridgelines to the south and the crescent-shaped Monterey Bay to the north. A series of wooded canyons radiate from the ridge to the bay and are separated by flat elevated landforms, known are mesas. Each mesa is isolated from the others, allowing the natural separation of various types of land uses. According to the City's General Plan, Monterey's image is that of a small-scale residential community beside the bay (City of Monterey 2016).

The visual character of the MHS campus is defined by the buildings and structures supporting educational uses. The campus is located within a residential neighborhood and bounded by residential development to the north, south, and west, and commercial uses to the east. The Dan Albert Stadium and adjacent lower field are located on the eastern portion of MHS. Constructed in 1938, the Dan Albert Stadium features an athletic field with synthetic turf, a general seating area with stone bleachers, and temporary press box. A running track encircles the athletic field and the seating area is on the west side of the stadium. The temporary press box is located on the western edge of the athletic field directly behind the stone bleachers. Elevations on the Dan Albert athletic field are estimated to be 95 feet above mean sea level (amsl) (City of Monterey 2019).

The lower field is unpaved and relatively flat with slightly sloped edges. There is a paved parking lot adjacent to this area. The MHS track and field shot put circle and discus cage are located on the northwest corner of the lower field. Existing on-site elevations at the lower field range from 87 feet amsl to 84 feet amsl (City of Monterey 2019). Currently, construction is occurring northeast of the field, so that there is visible construction equipment and activities occurring on site.

The aesthetic quality of a view is dependent on the visual resources present and the composition of the view. Aesthetic quality is described in terms of vividness, intactness, and unity:

- **Vividness:** The extent to which the landscape is memorable, which is associated with the distinctiveness, diversity, and contrast of visual elements.
- **Intactness:** The integrity of visual order in the landscape and the extent to which the existing landscape is free from atypical visual intrusions (i.e., an element that appears out of place with the visual order).
- **Unity:** The extent to which visual intrusions are sensitive to and in visual harmony with the existing landscape.

The Dan Albert Stadium has moderately high vividness because the existing athletic field is well maintained, landscaped, and surrounded by mature trees, with a view of Monterey Bay in the background to the northeast. There is moderate visual order in the landscape as the area has moderate visual intrusions. The key visual intrusion is the view of the unpaved lower field area. Existing development is in visual harmony with the landscape. Accordingly, there is moderate unity and moderate intactness. Overall visual quality at the Dan Albert Stadium is, therefore, moderate. The lower field has low vividness because the site is characterized by patches of dirt and unmaintained ground cover. The mature trees that surround the site contribute to the quality, but overall, there is low unity and low intactness. Overall visual quality at the lower field is therefore low. Representative photographs showing visual conditions on the project site and immediately surrounding areas are shown on Figures 3.1-1. through 3.1-4.

Source: Ascent Environmental 2020

Figure 3.1-1 View Looking East from the West Side of the Stadium

Source: Ascent Environmental 2020

Figure 3.1-2 View Looking South from the East Side of the Stadium

Source: Ascent Environmental 2020

Figure 3.1-3 View Looking North from the West Side of the Stadium

Source: Ascent Environmental 2020

Figure 3.1-4 View Looking Toward the Lower Field from the west side of the Stadium

SCENIC CORRIDORS AND VISTAS

Scenic corridors are considered an enclosed view of landscape, seen as a single entity that includes the total field of vision visible from a specific point, or series of points along a linear scene. Scenic vistas are generally considered to be locations from which the public can experience unique and exemplary high-quality views, including wide or even panoramic views of great breadth and depth, often from elevated vantage points.

According to the City of Monterey General Plan, Pacific Street is a proposed scenic road (City of Monterey 2016: Map 2). The MPUSD facilities located along Pacific Street shield direct views of the project site from Pacific Street. In addition, given the slightly elevated position of the site and surrounding development, the project site is not visible from Pacific Street. The project site is not visible from any other proposed or designated scenic roads.

Scenic vistas include the coastline and the central ridge of wooded hills that form the backdrop to the City of Monterey, as well as views of the Monterey Bay (City of Monterey 2004: 2-6). Long-range views of the Monterey Bay can be seen toward the northwest from the stone bleachers in the Dan Albert Stadium, although the view is partially obstructed by trees and buildings.

Scenic Highways

State Scenic Highways are those highways that are either officially designated by Caltrans or are eligible for designation. There are no officially designated State Scenic Highways, or eligible State Scenic Highways, located in the vicinity of the project site. The nearest state designated scenic highways to the project site are State Route 1, located approximately 1.2 miles to the east, and State Route 68, located approximately 1.9 miles to the east (Caltrans 2020).

LIGHT AND GLARE

Luminance Fundamentals

Before discussing the existing sources of light and glare project on the project site, background information about common luminance are defined below to provide context and a better understanding of the technical terms referenced throughout this section.

- **Light trespass**. Light trespass, also commonly referred to as light spill, results from light emitted from an installation that falls outside the boundaries of the property on which the lighting system is installed. Light trespass is measured on both the vertical plane (e.g., light shining above the ground) and horizontal plane (e.g., light shining on the ground) (NLPIP 2003).
- **Obtrusive light**. Spill light that causes discomfort, distraction, or a reduction in the ability to see essential information, such as traffic signals.
- **Glare.** The discomfort or impairment of vision experienced when the image is excessively bright in relation to the general surroundings.
- **Sky glow.** The diffuse brightening of the night sky.
- **Illuminance**: The quantity of incident light on a plane surface, commonly measured in terms of foot-candles.
- **Foot-candle (fc)**. A foot-candle is a measurement of light intensity. One foot-candle is defined as enough light to saturate a one-foot square with one lumen of light. Table 3.1-1 includes recommended foot-candle levels for common applications established by the Illuminating Engineering Society of North America (IESNA) (Waypoint Lighting 2020).
- **Candela**: A candela is a measurement of luminous intensity.

Table 3.1-1 Illuminating Engineering Society of North America Foot-Candle Recommendations

Application	Maintained Horizontal Light Levels	
	Average (fc)[a]	Range (fc)[a]
Residential		
Bathroom Vanity	30	-
Bedroom	5	-
Dining	5	-
Kitchen (Cooktop)	30	-
Deck/Patio	0.6	-
Educational (Schools)		
Classroom	15	15–60
Auditorium/Lecture Hall	10	5–20
Gymnasium – Class I (Professional or College Division 1)	100	—
Gymnasium – Class II (College Division 2 or 3)	75	—
Gymnasium – Class III (High School_	50	—
Gymnasium – Class IV (Elementary School)	30	—
Commercial Office		
Private Office	40	30–50
Conference Room	30	15–60
Lunch and Break Room	15	5–20
Retail		
Discount/Warehouse/Drug/Convenience	50	25–100
Department Store	40	20–80
Grocery Store	50	25–100

[a] One foot-candle (fc) is defined as enough light to saturate a one-foot square with one lumen of light.

Source: IESNA, as compiled by Waypoint Lighting 2020; US Department of Energy 2012.

Existing Light, Sky Glow, and Glare Conditions

Existing sources of light within the project vicinity include lights on the MHS campus, such as in the adjacent parking lot, along walkways, and on the exteriors of MHS campus buildings, and along nearby roadways. With respect to on-site field lighting, MHS has used temporary field lighting to illuminate evening games in seasons before 2018–2019. On average, temporary field lighting was used to illuminate 5 evening games over 9 years. In 2019, Peninsula Sports Incorporated, the governing body for referees for the Monterey area, would no longer referee or certify games that used temporary lighting due to safety concerns of the exhaust fumes from generators and unsatisfactory lighting conditions. Additionally, construction adjacent to the field precluded its use for athletic games in 2019. Accordingly, during the 2019 season, all home football games, including evening games, were played at the nearby Monterey Peninsula College (MPC) football stadium.

Sources of daytime glare within the project vicinity include reflected sunlight from windows of MHS buildings and vehicles in the adjacent parking lot and on nearby roadways. Sources of nighttime glare include the portable stadium lights used to illuminate evening games before 2018–2019 and vehicle headlights.

Anthropogenic sky glow is caused by all outdoor lighting, including streetlights, retail centers, parking lots, and other commonly occurring outdoor lighting. In communities near the California coast, there are two common types of sky glow: that caused by low clouds (the "marine layer") and that caused by uplight on clear nights (clear sky glow). The marine layer is localized and on a cloudy night the stray uplight from a town or small city can cause a distinctive glow reflected off the

clouds above it. If the marine layer is low enough to cause ground-level fog, the glow can radiate into the fog. The clear sky glow is the accumulation of the upward light from all the lighting within a radius of 100 miles or more from the viewer's location (NUSD 2019). Sources of sky glow within Monterey include streetlights, Monterey Regional Airport, MPC, Cannery Row, and retail centers including the Del Monte Shopping Center. Nighttime lighting measurements were not taken of the MHS campus or surrounding areas, but observation of the residential neighborhoods indicates that much of the neighborhood is mostly dark with isolated glow from residential lighting or streetlights; therefore, even though the residential areas surrounding MHS are most accurately characterized as suburban in land use character, the nighttime lighting environment within the project vicinity has low existing brightness based on observation of the project area, which is more consistent with the rural environmental zone established by the IESNA Lighting Handbook (Zenith 2020).

Sky glow from the low clouds or fog of the marine layer varies considerably depending on the time of year, the altitude of the clouds, the cloud density and reflectivity, temperature, and other factors. The primary causes of marine layer glow tend to be downtown districts, regional malls, auto malls, and major freeway commercial corridors. Glow conditions are mostly determined by cumulative upward light from the broader community, and not from a single neighborhood or light source; however, a localized source of substantially brighter, upward light than the surrounding area can accentuate local sky glow (e.g., a fully lit auto dealership). Sky glow is worsened by low clouds because they reflect light pollution; a recent study found that in some rural locations, clouds resulted in skies that were nearly three times brighter than in clear conditions. In a city, brightness increased by ten times (Public Library of Science 2011).

SENSITIVE RECEPTORS

Viewer sensitivity represents the reaction of a viewer to landscape change in the project area. For the purposes of this analysis, viewer groups include residents in public areas of neighborhoods adjacent to the project site, and MPUSD staff, students, and employees of and visitors to nearby existing commercial development. Views from private properties are important to their residents; however, CEQA's purview for determination of a significant effect on the environment applies to views from public places, such as neighborhood streets, public parks, or public trails. With this in mind, sensitive viewers for purposes of this discussion include individuals with a direct view of the project site from a public vantage point, such as area residents, but including others traveling on local public roadways and sidewalks. The typical daytime viewers within the project area include residents, MPUSD staff, students, and commercial employees. Residents in the area tend to have high sensitivity to visual changes, because they spend more time in the area and are accustomed to the existing views, in some cases for many years. Although those working, learning, and commuting in the area may look for local landmarks and scenery, they typically are less sensitive to visual changes than residents because they are not focused on the aesthetic quality of their neighborhood.

Nighttime views within the project area are also of particular importance to surrounding neighborhood residents and the broader Monterey community. General Plan Policy f.9 directs the City to discourage high levels of ambient lighting and maintain night skies, and City Code Section 38-111(D)(2) states that "all project lighting shall be screened so the light source will not be visible off site." The typical nighttime viewers within the project area include residents using public roads, sidewalks and other public areas, and therefore residents should be considered sensitive receptors when in public areas. MPUSD staff; and students, all are also considered sensitive receptors for this analysis. Residents in the area tend to have high sensitivity to changes in luminance, because they are accustomed to the existing night sky views and changes in night lighting that have occurred over their time living in the area. Although those working and participating in nighttime activities in the area may look for views of the night sky, they typically are less sensitive to changes in luminance than residents, because their expectation includes the lighting necessary for nighttime activities that typically occur on the project site.

3.1.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Scenic Vistas and Visual Character and Quality

Evaluation of aesthetic resource impacts are based on review of site photos and documents pertaining to the project site including the City of Monterey General Plan (as amended, 2016), City of Monterey General Plan EIR (2004), and the City of Monterey City Code. Potential aesthetic impacts of the Monterey High School Stadium Improvements Project were determined through a professionally accepted practice that considers three primary factors:

- the existing scenic quality of an area,
- the level of viewer exposure and concern regarding visual change, and
- the level of visual change caused by a project as seen by a given viewer group.

A substantial adverse effect would occur when viewers with high levels of overall visual sensitivity (i.e., high viewer concern and visual exposure, in settings of high existing visual quality), including residents in public areas of neighborhoods around the project site and MPUSD staff, students, and employees of and visitors to nearby existing commercial development, encounter substantially diminished scenic quality, substantial visual change, or scenic view obstruction as a result of the project, as seen from publicly accessible viewpoints.

Light and Glare

Significance Criteria

In this analysis, MPUSD uses a multi-faceted approach for evaluating impacts from light and glare. The analysis uses a combination of qualitative and quantitative factors to evaluate the degree of change to the existing nighttime lighting environment resulting from the project.

Quantitative valuation of light impacts in this evaluation is based on standards developed by IESNA. MPUSD and the City of Monterey have not adopted quantitative light standards. The IESNA Lighting Handbook establishes recommended average maintained fc levels for a broad range of applications to ensure adequate illumination and safety of occupants (Waypoint Lighting 2020).

The IESNA handbook ranks geographic areas by the amount and intensity of existing light sources, referred to as environmental zones. The environmental zones range from E0 (protected and most sensitive) to E4 (urban and least sensitive). Areas that are more rural in character, and therefore, exhibit few existing sources of light, are more susceptible to impacts resulting from the installation of new lighting sources. By contrast, urbanized areas have many existing lighting sources and are, therefore, less susceptible to adverse effects associated with new lighting sources. Table 3.1-2 includes the environmental zones established by IESNA (Institution of Lighting Professionals [ILP] 2020).

Table 3.1-2 Environmental Zones

Zone	Character of Surrounding Area	Lighting Environment	Examples
E0	Protected	Dark	Astronomical Observable dark skies
E1	Natural	Dark	Relatively uninhabited rural areas
E2	Rural	Low brightness	Sparsely inhabited rural areas or relatively dark outer suburban locations
E3	Suburban	Medium district brightness	Well inhabited rural and urban settlements
E4	Urban	High district brightness	Town/City centers with high levels of night-time activity

Source: ILP 2020

The nighttime lighting environment for the project site is estimated to have a sky quality measurement of 19.82. In the IESNA ranking system, the project site and immediate vicinity would be categorized in the E2 Rural lighting zone, which denotes areas of low brightness, such as relatively dark "outer" suburban locations, because the neighborhood is generally darker than the IESNA Suburban zone. IESNA's recommended "light trespass" standard for light spillover in environmental zone E2 is 0.6 fc during pre-curfew hours (before 10 p.m.) and 0.3 fc during post-curfew hours (after 10 p.m.), (ILP 2020; NUSD 2019). Light impact was analyzed by quantifying the light trespass beyond the MPUSD property line. Evaluation of glare impacts is based on standards established by the International Commission of Illumination/Commision Internationale de l'Eclairage, (CIE). In the E2 lighting zone, which applies to the project site, the CIE finds that light intensity from luminaries should not exceed 7,500 candelas during pre-curfew hours or 500 candelas during post curfew hours. These standards provide a reference value for light impacts and are used in this EIR as part of the determination of whether nighttime lighting and glare would be significant under CEQA.

The evaluation of nighttime lighting and glare also considers the sensitivity of viewers on and around MHS, consistent with Monterey City Code Section 38-111(D)(2) which requires all project lighting to be screened so the light source is not visible off site. As described above, residents, MPUSD staff, and MPUSD students in the area are also particularly sensitive to changes in nighttime lighting in residential areas. As a result, a substantial adverse effect related to nighttime lighting and glare would occur when viewers with high levels of overall visual sensitivity (i.e., high viewer concern and visual exposure, in settings of high existing visual quality) encounter a perceived increase in light trespass, light intensity, or sky glow as a result of the project. In this analysis, MPUSD has determined that in a residential setting with relatively low existing brightness, any increase in light trespass, light intensity, and/or sky glow would be significant, if the illuminance produced by the project would be visible to these sensitive viewer groups.

Nighttime Illumination Visual Simulations

To quantify ambient light levels after installation of the proposed lighting, Musco Sports Lighting LLC, prepared a photometric study. The photometric study evaluates the amount of light trespass and glare generated by proposed stadium lighting at the MHS property line. The results of this study are considered in this EIR as part of the body of substantial evidence after independent review and analysis by the EIR authors.

The qualitative portion of the evaluation is supported by visual simulations created by the EIR authors for the light and glare analysis. A multi-step process was employed to prepare nighttime visual simulations for the project. Digital photography was captured from key observation points (KOPs) verified by the use of GPS location support data. The KOPs were chosen to demonstrate the greatest change in nighttime conditions from publicly accessible places after evaluating several options for viewpoints for visual simulations. A standard digital 35mm camera was utilized consistently throughout the process, resulting in what is referred to as a "normal" view, i.e., typical of what is perceived by the human eye. A normal view allows for viewing of the 3D model under similar circumstances to the proposed project physically viewed in the field.

The digital photography, along with the corresponding GPS support data was referenced in real-world scale to 3D Computer Aided Design (CAD) platforms (i.e., 3D Studio and AutoCAD). To ensure a high degree of visual accuracy in the simulations, CAD allows for life-size modeling within the computer. This translates to using real-world scale and dimension to locate and portray facilities/structures and terrain features. Other data used to verify simulation precision include aerial photography and Google Earth topographical data.

To verify proposed structure location, elevation, and orientation, Google Earth topographical and aerial photography data were initially employed as background reference files. The 3D Studio massing models of the proposed structures were constructed, based upon AutoCAD data provided by MPUSD. Camera positions and orientations were also recorded in the same 3D coordinate space, according to the GPS location data and aerial photography. Completing these stages of the process, the 3D Studio massing models of the proposed structures, and the camera locations, now exist together in real world scale with respect to distance, elevation and orientation.

To generate the correct view relative to the digital photographs, an electronic camera lens, matching the physical lens from the field, was set up at its appropriate position in 3D coordinate space, again verified by the GPS location support data. Next, the digital photography was imported into the 3D database and loaded as an environment map, generating the digital camera view of the 3D model.

The 3D massing models of the proposed structures were displayed, along with any major existing structures, so that proper alignment, scale, angle, and distance could be verified. To complete the process, materials and texture mapping were applied to the 3D models. Then, a reality-based lighting solution was generated, based on engineering data of the lighting provided by MPUSD. To achieve this, physically based, photometric light sources were placed within the 3D model to represent each fixture. Light source characteristics were then matched, according to the engineering lighting data, including; light fixture type, light power, temperature/color, and angle. Finally, the visual simulation was generated with a physically based rendering engine, using a multi-threaded image processing algorithm commonly known as Ray Tracing.

THRESHOLDS OF SIGNIFICANCE

Based on State CEQA Guidelines Appendix G, the project would result in a significant impact on aesthetics, light, and glare 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 within a state scenic highway;
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality;
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. MPUSD has determined that in a residential setting with relatively low existing brightness, any increase in light trespass, light intensity, and/or sky glow would be significant, if the illuminance produced by the project would be visible to these sensitive viewer groups.

ISSUES NOT DISCUSSED FURTHER

There are no officially designated State Scenic Highways or eligible State Scenic Highways located in the vicinity of the project site. The nearest state designated scenic highways are State Route 1, located approximately 1.2 miles to the east, and State Route 68, located approximately 1.9 miles to the east. The project site is not visible from these highways. No impacts to scenic resources within a state scenic highway would occur, and therefore, this topic is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: Have a Substantial Adverse Effect on a Scenic Corridor or Vista

The project site is not visible from Pacific Street, a proposed scenic road, nor does the project propose any changes along Pacific Street. Long-range views of the Monterey Bay can be seen to the northwest from the stone bleachers in the Dan Albert Stadium. Because proposed lighting would be mounted on narrow poles, and project improvements at the lower field would be constructed generally to the west of the stone bleachers, the project would not substantially obstruct spectator views of the Monterey Bay. The impact would be **less than significant**.

Pacific Street is the nearest scenic corridor, located approximately 0.2 miles east of the project site. The project does not propose any changes along Pacific Street. MPUSD facilities and other development located along Pacific Street shield direct views of the corridor from the project site (Figure 3.1-1). Therefore, the project would not result in a substantial adverse effect on a scenic corridor.

The stone bleachers afford a publicly accessible view of Monterey Bay to the northwest (Figure 3.1-1). Project improvements that could affect spectator views of the surrounding ridgelines from the stone bleachers include the 70-foot light standards, visitor bleachers, fencing, and weight room. Fencing and the weight room in the lower field would be topographically lower than the viewpoint of the bleachers and would not obstruct views of Monterey Bay. The visitor bleachers proposed on the east side of the Dan Albert Stadium would be constructed in the west-facing view from the stone bleachers, whereas the Monterey Bay is generally visible in the northwest-facing view. Therefore, proposed improvements would not substantially obstruct or intrude into spectator views to the Monterey Bay.

Given the height of the 70-foot light standards, the light poles would also be visible to some adjacent residential uses and public streets with west-facing views of Monterey Bay. However, the poles would be narrow and topographically lower than the viewers, and therefore, would be generally out of view to most residential areas.

The impacts on scenic corridors or vistas would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.1-2: Substantially Degrade Existing Visual Character or Quality from Construction and Completed Facility Changes (Not Including Light and Glare; See Impact 3.1-3)

Construction activities would be consistent with existing activities on site, and would also be temporary. The project components would be consistent with the existing visual character and quality of the site, with a potential for an increase in visual quality in the lower field area. Therefore, the impact would be **less than significant**.

Construction Activity

Project construction would involve clearing and grading in areas where proposed structures (e.g., bleachers, multi-use field, weight room, etc.) would be built. Equipment and materials would be stored throughout the project site during construction, with the location dependent on where construction is occurring. Residents, MPUSD staff, students, and commercial employees would see construction activities and equipment. Construction activities would add unnatural elements to views that would contrast with existing on-site natural elements. Construction activities and associated visual characteristics are not uncommon in residential and institutional educational uses. However, construction activities would be temporary, and active construction areas would be visible for a short period of time. Construction activities may reduce visual quality from moderately high to moderate or moderate to moderately low. Areas with moderate visual quality would maintain moderate visual quality. As a result, any reduction of visual quality would be **less than significant**.

Appearance after Completion

The project site is located on the eastern portion of the MHS campus and is characterized by the existing athletic field, the Dan Albert Stadium, and an adjacent undeveloped lower field used for overflow parking. Residential uses surround the MHS campus to the north, south, and west, and commercial uses are located to the east. Because the project would add more athletic facilities to the MHS campus, the project would be visually consistent with the existing visual character of the site, and would not substantially alter the visual character of the project area. Visual quality of the appearance of the Dan Albert Stadium would be maintained, because the project involves improvements to the stadium that are consistent with its visual character and would be minimal in visual magnitude. Because the lower field is currently an unpaved lot with low vividness and existing visual quality, construction of the lower field would not adversely affect visual quality in that area. The impact would be **less than significant** Mitigation Measures.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.1-3: Create a New Source of Substantial Light or Glare During Construction and When in Use after Completion

The project would install new permanent lighting at the Dan Albert Stadium, which currently lacks permanent on-site field lighting. The proposed light fixtures would be at the top of 70-foot poles. They would be designed consistent with IESNA's light trespass standard and CIE's light intensity glare standards. Light fixtures would be designed to direct light downward to minimize light trespass and sky glow. However, proposed lighting would be visible to the surrounding area, which would alter the nighttime environment with additional illuminance. When the marine layer is present as low clouds or fog, the visible illuminance would also be perceived as cloud reflection or fog light scattering. From public streets in the surrounding neighborhood, the proposed lighting would be visible to sensitive viewer groups. Therefore, impacts on light and glare conditions would be **potentially significant**.

Construction Lighting

During project construction, glare would be produced from sources such as reflective surfaces of construction vehicles. These sources would be temporary during construction vehicle use. Glare would depend on the time of day and would be transient and distributed as vehicles move through the project site. Therefore, glare would not be substantial during the construction period. The ground level of the stadium is largely shielded from nearby receptors, and receptors generally would not see this glare. Low-level, temporary safety lighting may be needed for construction site security. Construction activities would not occur during nighttime hours consistent with City Code Section 38-112.2 which limits construction to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, 8:00 a.m. to 6:00 p.m. Saturday and 10:00 a.m. to 5:00 p.m. Sunday. The use of safety lighting would be temporary and minimal. The safety lighting would be low to the ground and, therefore, shielded from nearby viewers. As a result, temporary construction glare and nighttime lighting impacts would be **less than significant**.

Operational Lighting of the Field at Dan Albert Stadium

The project would install new permanent lighting at the Dan Albert Stadium for nighttime athletic activities and football games, which currently are not held at the stadium. The project would also have limited safety-related light fixtures on the lower field, such as lights to illuminate the weight room door, the home bleachers, and visitor bleachers. Field lighting would not be installed at the lower field. The physical features and use restrictions associated with the proposed field lighting are summarized in Table 3.1-3.

Table 3.1-3 Proposed Permanent Lighting Characteristics

Lighting Features	Details
Number of Field Light Standards	▶ Four 70-foot field light standards with 2 on each side of the filed, located generally on the four corners of Dan Albert Stadium. Light fixtures pointed downward at the field ▶ Two 20-foot bleacher light standards with one located at the home bleachers and one located at the visitor bleachers ▶ One light fixture mounted above the weight room door
Height of Light Fixtures mounted on the 70-foot Light Standards	▶ Field lights: approximately 70 feet ▶ Egress lighting: approximately 60 feet ▶ Lower-output LED luminaires: approximately 16 feet
Height of Light Fixtures mounted on the 20-foot Light Standards	Bleacher lights: approximately 20 feet
Height of Weight Room Light	Weight Room Door Light: approximately 10 feet
Lighting Type	Musco Light-Structure System LED
Use Restrictions	Evening athletic games and evening athletic practices. With the exception of evening athletic games, use of lighting for athletic practices would end at 9:00 p.m. Most athletic games would end by 10:00 p.m.

LED: Light-emitting diode

Source: Musco Lighting, 2020.

As shown in Table 3.1-3, downward-facing luminaires (i.e., field lights) would be affixed at a height of approximately 70 feet on each pole to illuminate the stadium field during athletic competitions, practices, and other events. A second set of egress lights would be affixed at a height of approximately 60 feet on each pole, and a third set of lower-output LED luminaires would be installed up to 16 feet to illuminate airborne objects, such as footballs during punts and kickoffs and soccer balls. Two 20-foot light standards would be installed to illuminate pathways, one located at the home bleachers and one located at the visitor bleachers. A light fixture would be mounted approximately 10 feet above the weight room door located on the northeastern wall of the proposed modular building.

New elevated light sources could cause light trespass outside of the MHS campus. The proposed light fixtures would be designed specifically to minimize light trespass. The approximate 70-foot height of the light standards enable the field and egress light fixtures to be mounted with a narrow beam angle to focus light downward toward the field. While it may be counterintuitive that highly mounted light fixtures would reduce light trespass relative to lower fixtures, their narrower beam angle and downward direction would emit less light visible to nearby land uses. The proposed field and egress light fixtures would also include reflectors and visors to block upward light.

Lower-output luminaires mounted at 16 feet on each pole would cast light upward. These fixtures are dimmer than the field lights and would be lit during games to illuminate airborne objects such as footballs. The use of lower-output LED luminaires is necessary for games with aerial objects; the lighting intensity is designed to be as low as feasible to illuminate the aerial game balls; however, they would contribute to nighttime lighting, including sky glow.

The light fixture mounted above the weight room door would illuminate the primary entry point to the building. The doorway would be located on the northeastern wall of the proposed modular building, facing the existing MPUSD facilities located at 700 Pacific Street. The light fixture would be shielded and pointed downward to illuminate the entryway and surrounding pathway. It would not appreciably contribute to sky glow. Much of the site is also shielded from residential viewers from trees and topography. As a smaller light among other lights in the area (e.g., MPUSD offices), this light would not be very noticeable to adjacent viewers.

Musco prepared a light impact analysis that quantified the level of light trespass beyond the MPUSD property line. The project site is categorized in the E2 lighting zone under the IENSA ranking system. E2 denotes areas of low brightness, such relatively dark suburban locations. Figures 3.1-5 and 3.1-6 depict the amount of light trespass in fc beyond the MHS property line. Light trespass is measured on both the vertical plane (light shining through a window) and horizontal plane (light shining on the floor). As points along the edge of the property the maximum fc is shown in green, and the minimum fc is shown in red. As shown on Figure 3.1-5, the maximum amount of light trespass beyond the MHS property along the vertical plane would be 0.020 fc at an area located to the northeast of the Dan Albert Stadium. Vertical plane lighting would be above the ground, which would make it potentially visible to surrounding uses, but at a low intensity. As shown on Figure 3.1-6, the maximum amount of light trespass along the horizontal plane, i.e., on the ground surface, the maximum amount of light trespass beyond the MHS property would be 0.007 fc at an area located to the northeast of the Dan Albert Stadium. These values are substantially lower than the IENSA recommendations for the E2 lighting zone of less than 0.6 fc during pre-curfew hours (before 10 p.m.) or 0.3 fc during post-curfew hours (after 10 p.m.); however, the vertical plane lighting would be above the ground, which would make it potentially visible to surrounding uses at a low intensity.

To illustrate the future off-site nighttime lighting conditions, MPUSD prepared nighttime visual simulations for two off-site key observations points (KOP) located north of the stadium in publicly accessible areas where the terrain is slightly elevated and offer a clearer view of the proposed lighting. These locations are shown on Figure 3.1-7. The existing nighttime lighting baseline for KOP-1 and KOP-2, showing existing security lighting on campus, and near Dan Albert Stadium, is shown on Figures 3.1-8 and 3.1-10, and the representative nighttime lighting project conditions are shown on Figure 3.1-9 and 3.1-11. As shown on Figures 3.1-9 and 3.1-11, proposed lighting would be visible with minor prominence in nighttime lighting conditions when compared to the existing nighttime baseline. Generally, the lighting would largely blend in with existing sources of nighttime light from this viewpoint. A halo of light is visible above the Dan Albert Stadium field in KOP 1 against the forested ridgeline in the background, showing the project's contribution to sky glow. In KOP 2, one of the light standards and light beams from the lights are clearly visible in the middle ground. It is likely that the halo effect illustrated in KOP would be worsened in marine layer fog or low cloud

conditions, because the light would reflect off the clouds or be scattered by fog, further contributing to anthropogenic skyglow. These simulations also illustrate the visibility of the lights with limited light trespass in adjacent neighborhoods, consistent with the numerical evaluation provided above.

The proposed field lighting would generate light intensity that could also cause discomfort glare to sensitive viewers if exposed to a direct or reflected view of a light source. According to CIE glare standards, light intensity within the E2 lighting zone shall not exceed 7,500 candelas during pre-curfew hours (before 10 p.m.) or 500 candelas during post curfew hours (after 10 p.m.). As shown on Figure 3.1-12, light intensity along the MHS property line would exceed 500 candelas at one location northeast of the Dan Albert Stadium, which exceeds the post-curfew CIE standard of 500 candelas. In most areas, however, the candela value is far below 500. Nonetheless, nighttime visibility of the field lighting to the surrounding area and contribution to community sky glow are confirmed by the analysis.

Conclusion

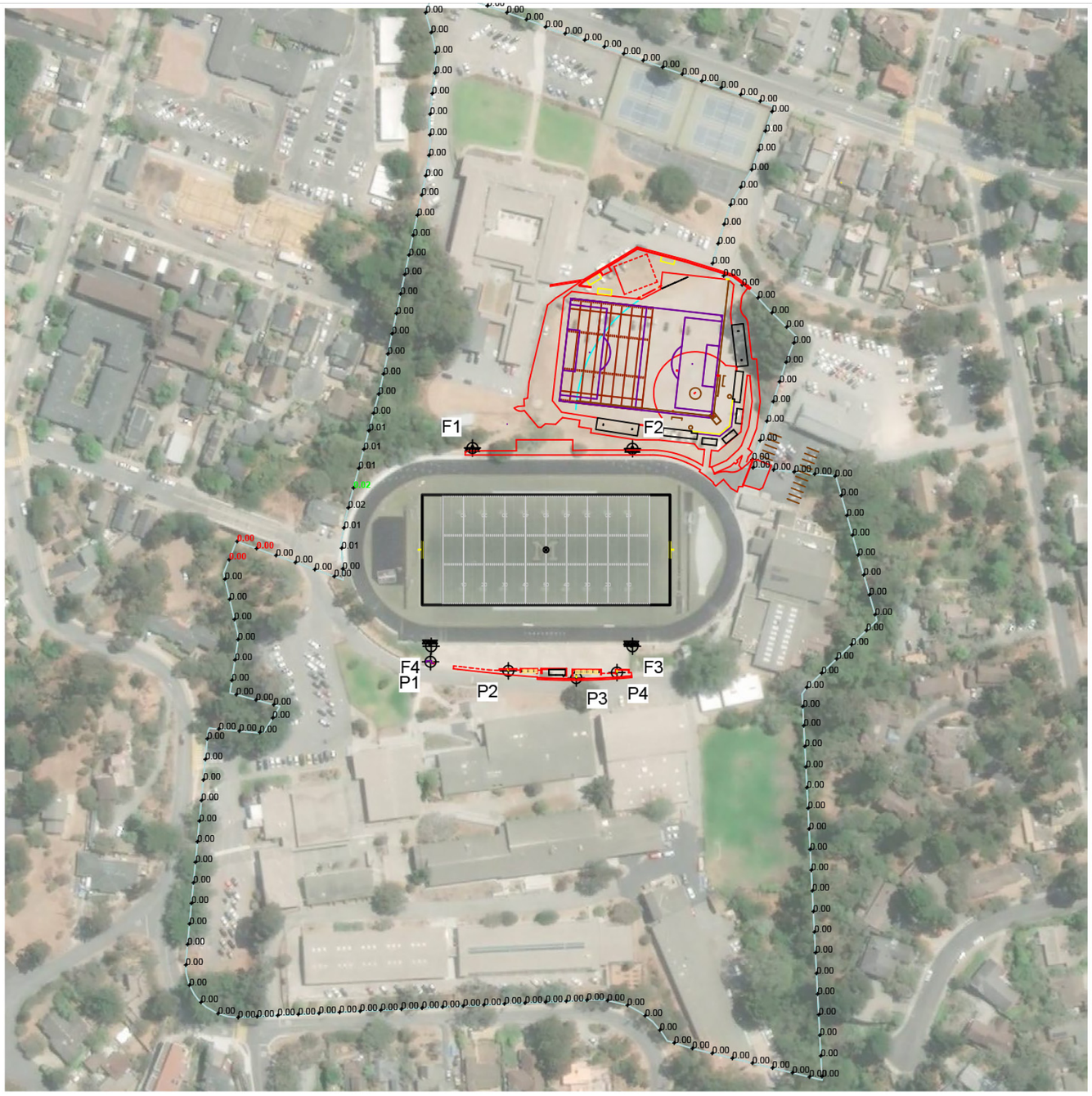
Consistent with IESNA and CIE standards, proposed stadium lighting is designed to minimize light trespass, with most metrics for project lighting, other than for glare, being consistent with these standards. However, neighborhood receptors are sensitive to changes in night sky visibility, and the City of Monterey has indicated the importance of night sky visibility both in its General Plan Policy f.9 and its City Code Section 38-111(D)(2), the latter of which requires all project lighting to be screened so the light source will not be visible off site. The project would cause visible changes to lighting, as shown in the visual simulations, which also indicate a change in sky glow. Therefore, proposed lighting would alter the nighttime lighting environment and the illuminance produced by the project would be seen by sensitive viewer groups while nighttime lighting is in use. Therefore, the impact related to light and glare would be **potentially significant.**

Mitigation Measures

Mitigation Measure 3.1-3: Restricted Use of Lighting at Dan Albert Stadium

MPUSD shall implement the following restrictions to limit the use of lighting at Dan Albert Stadium.

- **MHS Athletic Game use of Lighting at Dan Albert Stadium:** While lights may be used for all evening football games, lights shall be used only for up to four games played by each of the other MHS field sports (soccer, field hockey, and lacrosse) during the months of October to March. This would total sixteen games combined of soccer, field hockey, and lacrosse. Field sport games other than football shall end by 7:00 p.m. and lights shall be turned off by 8:00 p.m. Lights shall not be used for any games during the months of April through September.
- **MHS Athletic Practice use of Lighting at Dan Albert Stadium:** Lights shall be used for field sports practices only during the months of October to March. Field sports practices shall end by 7:00 p.m. and lights shall be turned off by 8:00 p.m. Lights shall not be used for any practices during the months of April through September.
- **Weekday use**: Any use of the lower field or Dan Albert Stadium field by non-school related groups shall end by 6:00 p.m.
- **Weekend use**: On Saturdays, use of the lower field or Dan Albert Stadium field for school-related activities and non-school related activities shall end by sunset. Use of the lower field or Dan Albert Stadium field shall not occur on Sundays. Because of these restrictions, lighting at Dan Albert Stadium shall not be used on weekends.



Light trespass is measured on both the vertical plane (light shining through a window) and horizontal plane (light shining on the floor). This figure depicts the maximum amount of light trespass beyond the MHS property along the vertical plane in fc. The maximum fc is shown in green, and the minimum fc is shown in red. As shown in the Illumination Summary table, the maximum light trespass on the vertical plane would be 0.02 fc.

GRID SUMMARY

Name:	**Property Line Spill**
Spacing:	30.0'
Height:	24.0' above grade

ILLUMINATION SUMMARY

MAX VERTICAL FOOTCANDLES

	Entire Grid
Scan Average:	0.001
Maximum:	0.020
Minimum:	0.000
No. of Points:	169

LUMINAIRE INFORMATION

Applied Circuits:	A, B, C, D
No. of Luminaires:	**54**
Total Load:	42.96 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

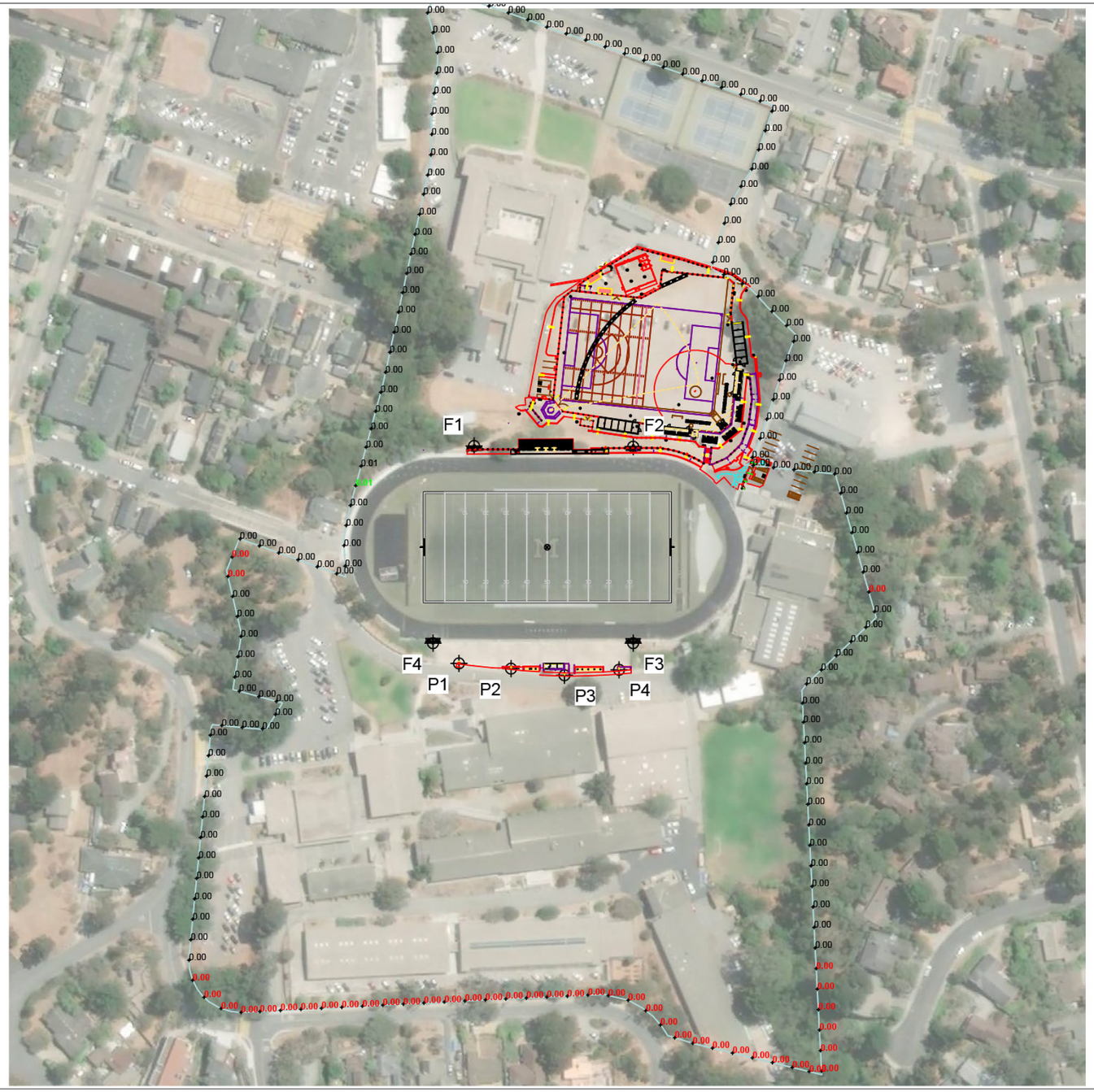
Pole location(s) ✛ dimensions are relative to 0,0 reference point(s) ⊗

0 90 180 FEET

19010164.02 GRX 004

Source: Image produced and provided by Musco Lighting in 2020

Figure 3.1-5 Light Trespass along the Vertical Plane



Light trespass is measured on both the vertical plane (light shining through a window) and horizontal plane (light shining on the floor). This figure depicts the maximum amount of light trespass beyond the MHS property along the horizontal plane in fc. The maximum fc is shown in green, and the minimum fc is shown in red. As shown in the Illumination Summary table, the maximum of light trespass on the horizontal plane would be 0.007 fc (rounded to 0.01 fc in the figure)

Name:	**Property Line Spill**
Spacing:	30.0'
Height:	24.0' above grade

ILLUMINATION SUMMARY

HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**0.000**
Maximum:	0.007
Minimum:	0.000
No. of Points:	169

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	65,600 / 52,000 / 89,600 / 46,500 lumens
No. of Luminaires:	**54**
Total Load:	42.96 kW

	Lumen Maintenance		
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-600	>120,000	>120,000	>120,000
TLC-BT-575	>120,000	>120,000	>120,000
TLC-LED-900	>120,000	>120,000	>120,000
TLC-LED-400	>120,000	>120,000	>120,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

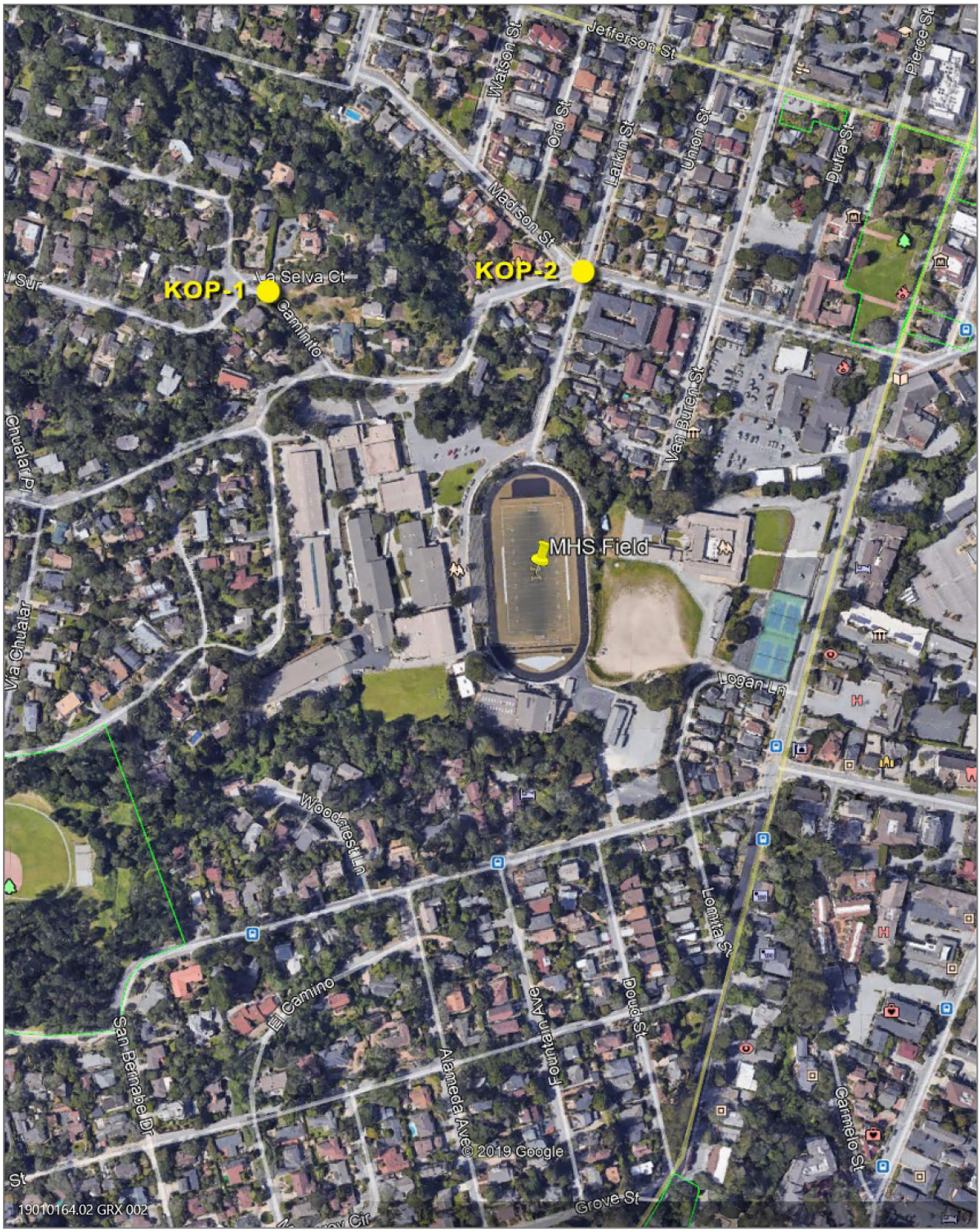
Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s)

0 90 180 FEET

19010164.02 GRX 003

Source: Image produced and provided by Musco Lighting in 2020

Figure 3.1-6 Light Trespass along the Horizontal Plane



Source: 3DScape 2020

Figure 3.1-7 Key Observation Point Locations

Source: 3DScape 2020

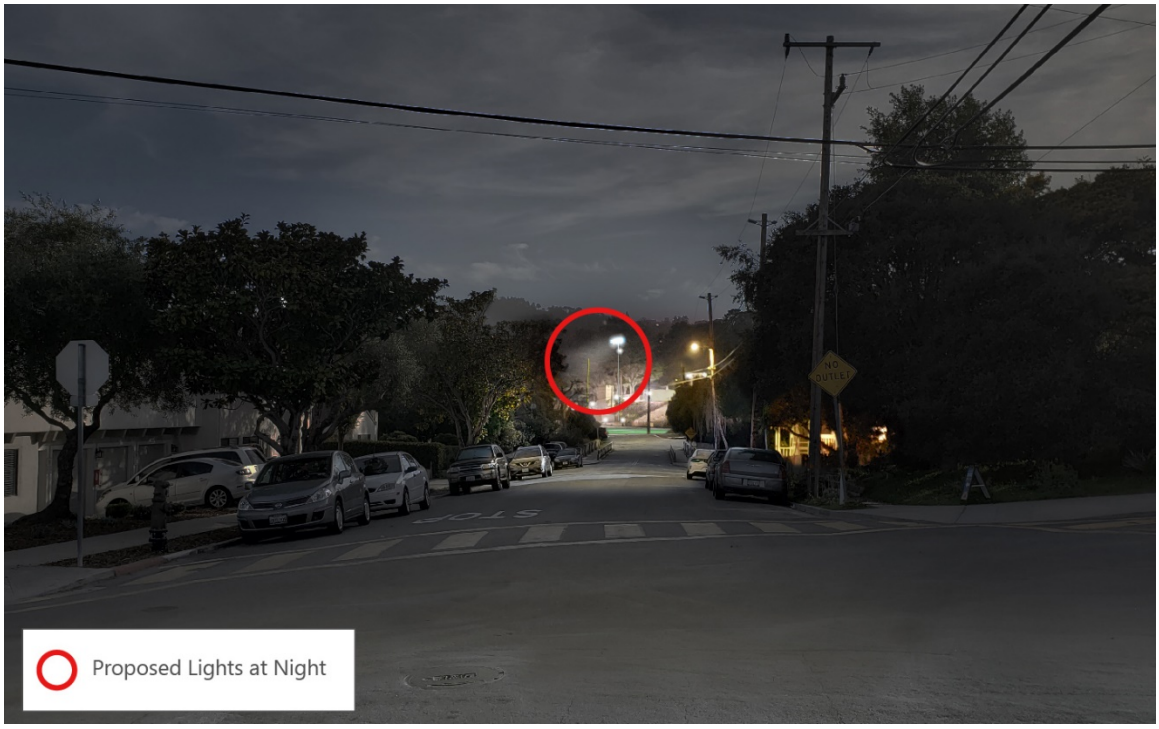
Figure 3.1-8 KOP-1, Existing Nighttime Baseline

Source: 3DScape 2020

Figure 3.1-9 KOP-1, Future Nighttime Conditions

Source: 3DScape 2020

Figure 3.1-10 KOP-2, Existing Nighttime Baseline

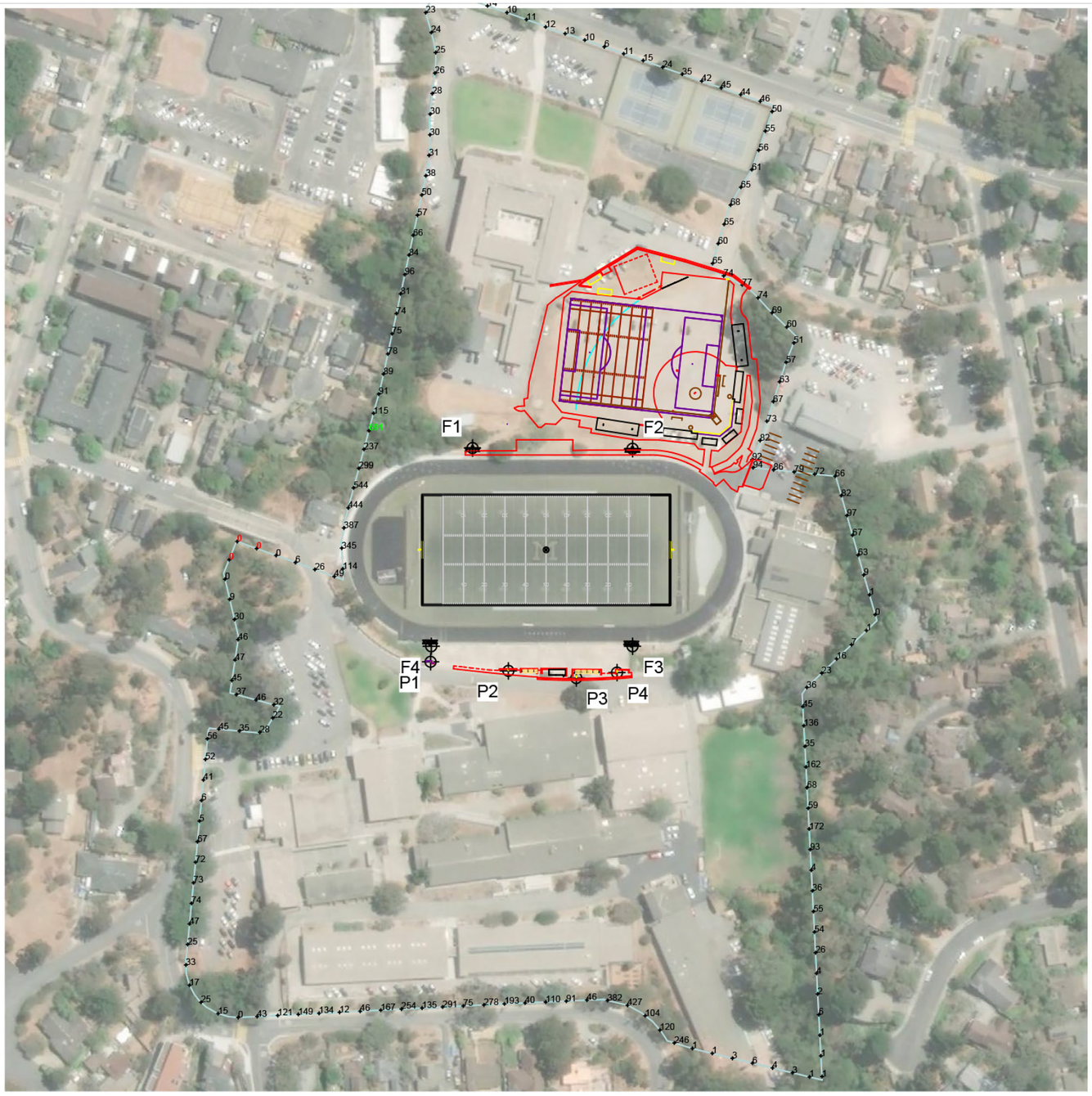


Source: 3DScape 2020

Figure 3.1-11 KOP-2, Future Nighttime Conditions

Significance after Mitigation

Implementation of Mitigation Measure 3.1-3 would establish required use restrictions based on time and user group to reduce the frequency of nighttime lighting use at the Dan Albert Stadium. The required restrictions would reduce the number of activities that would contribute to the change in the nighttime lighting environment. Proposed lighting has been designed to direct light downward, minimize light trespass, and comply with industry standards. The approximate 70-foot height of the stadium lights would enable each fixture to be mounted with a narrow beam angle to focus light downwards toward the stadium, thereby minimizing light trespass beyond the MPUSD property line and reducing the projects contribution to light trespass, light intensity, and sky glow. If the height of the light standards was lower, more light would necessarily radiate horizontally, increasing the risk of light trespass. Therefore, design measures have been implemented as part of the proposed project. Specifically, the level of light trespass beyond the MHS property is substantially lower than the IENSA recommendations for the E2 (rural) lighting zone. In addition, the light intensity along the MHS property line would be below the CIE post-curfew standard in most areas. However, the project would create a new source of light or glare that, in this residential setting with relatively low existing brightness, could not avoid all light trespass. Therefore, by their nature, stadium lights would be visible to off-site viewers and the City of Monterey has indicated the importance of night sky visibility both in its General Plan Policy f.9 and its City Code Section 38-111(D)(2), the latter of which requires all project lighting to be screened so the light source would not be visible off a project site. The project would cause visible increases in nighttime lighting levels, as shown in the visual simulations, which also indicate a change in sky glow. As a result, proposed lighting would alter the nighttime lighting environment and the illuminance produced by the project would be seen by sensitive viewer groups while nighttime lighting is in use. Altering the project design to remove the light standards would conflict with two basic objectives of the proposed project related to providing for nighttime use of the Dan Albert Stadium. There are no additional feasible mitigation measures available that would reduce nighttime light and glare impacts of the project to a less than significant level. This impact would be **significant and unavoidable**.



The image depicts light intensity along the MHS property line in candelas. The maximum candela is shown in green, and the minimum candela is shown in red. As shown in the illumination Summary table, light intensity along the MHS property line would exceed 500 candelas at one location northeast of the Dan Albert Stadium.

GRID SUMMARY

Name:	**Property Line Spill**
Spacing:	30.0'
Height:	24.0' above grade

ILLUMINATION SUMMARY

CANDELA (PER FIXTURE)

	Entire Grid
Scan Average:	73.443
Maximum:	690.921
Minimum:	0.000
No. of Points:	169

LUMINAIRE INFORMATION

Applied Circuits:	A, B, C, D
No. of Luminaires:	**54**
Total Load:	42.96 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

0 90 180 FEET

19010164.02 GRX 006

Source: Image produced and provided by Musco Lighting in 2020

Figure 3.1-12 Nighttime Glare

3.2 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable regulations, and an analysis of potential for construction and operational air quality impacts caused by implementation of the proposed Monterey High School (MHS) Athletic Field Improvements Project.

3.2.1 Regulatory Setting

Air quality in the project area is regulated through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policymaking, education, and a variety of programs. The agencies responsible for improving and maintaining the air quality within the air basins are discussed below.

FEDERAL

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates draw primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress in 1990. EPA's air quality efforts address both criteria air pollutants and hazardous air pollutants (HAPs). EPA regulations concerning criteria air pollutants and HAPs are presented in greater detail below.

Criteria Air Pollutants

The CAA required EPA to establish national ambient air quality standards (NAAQS) for six common air pollutants found all over the U.S. referred to as criteria air pollutants. EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with aerodynamic diameter of 10 micrometers or less (PM_{10}) and fine particulate matter with aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. The NAAQS are shown in Table 3.2-1. The primary standards protect public health and the secondary standards protect public welfare. The CAA also required each state to prepare a state implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. California's SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Table 3.2-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS)[a,b]	National (NAAQS)[c]	
			Primary[b,d]	Secondary[b,e]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	–[e]	Same as primary standard
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (147 µg/m^3)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Same as primary standard
	8-hour	9 ppm[f] (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
Sulfur dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m^3)	—	—
	3-hour	—	—	0.5 ppm (1300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	—	Same as primary standard
	24-hour	50 µg/m^3	150 µg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
	24-hour	—	35 µg/m^3	Same as primary standard
Lead [f]	Calendar quarter	—	1.5 µg/m^3	Same as primary standard
	30-Day average	1.5 µg/m^3	—	—
	Rolling 3-Month Average	–	0.15 µg/m^3	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	No national standards	
Sulfates	24-hour	25 µg/m^3		
Vinyl chloride [f]	24-hour	0.01 ppm (26 µg/m^3)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m^3 = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million.

a California standards for ozone, carbon monoxide, SO_2 (1- and 24-hour), NO_2, particulate matter, 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.

b Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°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.

c National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. The $PM_{2.5}$ 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 the U.S. Environmental Protection Agency for further clarification and current federal policies.

d National primary standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

e National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

f The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold 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.

Source: CARB 2016

Hazardous Air Pollutants and Toxic Air Contaminants

Toxic air contaminants (TACs), or in federal parlance, HAPs are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 3.2-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and, in California, California Air Resources Board (CARB) regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for air toxics to limit emissions.

STATE

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish California ambient air quality standards (CAAQS) (Table 3.2-1).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus on reducing the emissions from transportation and area-wide emission sources and provides air districts with the authority to regulate indirect sources.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

After a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Air Toxics Hot Spots Information and Assessment Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 in comparison to year 2000 (CARB 2000). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

REGIONAL AND LOCAL

Monterey Bay Air Resources District

The Monterey Bay Air Resources District (MBARD) attains and maintains air quality conditions in the North Central Coast Air Basin (NCCAB), where the project is located. MBARD is responsible for air monitoring, permitting, enforcement, long-range air quality planning, regulatory development, education, and public information activities related to air pollution, as required by the CAA and CCAA. Projects in the NCCAB are subject to MBARD's rules and regulations. Specific rules applicable to the proposed project may include:

- Rule 402 – Nuisances. Prohibits the discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 403 – Particulate Matter. Sets particulate matter emission limits for sources operating within the jurisdiction.
- Rule 426 – Architectural Coatings. Limits the volatile organic compound (VOC) content for architectural coatings; specifically, limits the VOC content of flat coatings to 50 grams/ liter.

The CCAA requires that all air districts in the state endeavor to achieve and maintain the CAAQS in their region by the earliest practical date. In accordance with the CCAA, MBARD has developed the 2012–2015 Air Quality Management Plan (AQMP) for the Monterey Bay Region. The plan includes an updated air quality trends analysis, emission inventory, and mobile source programs. No new control measures were adopted, instead, MBARD is focusing on grant programs to reduce ROG and NO_x emissions by offering incentives to reduce emissions from transportation sources, marine vessels, agricultural irrigation pumps, and off-road vehicles. The plan shows that the region continues to make progress toward meeting the state ozone standard.

City of Monterey

The *City of Monterey General Plan* (City of Monterey 2016) contains policies pertaining to air quality and the reduction of fixed source and transportation-based air pollution. However, none of these policies are directly applicable to the proposed project.

3.2.2 Environmental Setting

The project site is located within NCCAB, which includes Monterey, San Benito, and Santa Cruz counties. The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the

area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

CLIMATE, METEOROLOGY, AND TOPOGRAPHY

The NCCAB includes an area of approximately 5,159 square miles along the central coast of California, comprised of several mountain ranges and valleys. The Santa Cruz mountains are in the northwest and the Diablo Range is in the northeast. The southern portion of the Santa Clara Valley runs through the northern part of the air basin, and transitions into the San Benito Valley, which runs northwest to southeast and has the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley. The western boundary of the Salinas Valley is formed by the Sierra de Salinas, which also forms the eastern boundary of the Carmel Valley. The eastern Santa Lucia Range defines the western side of the Carmel Valley.

The NCCAB is characterized by moderately wet winters and dry summers with fog and low coastal clouds. The local meteorology of the project site and surrounding area is represented by measurements recorded at the Western Regional Climate Center Monterey Cooperative Station. The normal annual precipitation is approximately 19.73 inches. January temperatures range from a normal minimum of 43.4 degrees Fahrenheit (°F) to a normal maximum of 59.9°F. July temperatures range from a normal minimum of 51.9°F to a normal maximum of 67.5°F (WRCC 2016). The air basin is situated downwind of the San Francisco Bay Area Air Basin (SFBAAB). Transport of ozone precursor emissions from the SFBAAB plays a dominant role in ozone concentrations measured in the NCCAB (MBARD 2017).

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. A brief description of key criteria air pollutants in the NCCAB is provided below. Emission source types and health effects are summarized in Table 3.2-2. Monterey County's attainment status for the CAAQS and the NAAQS are shown in Table 3.2-3. Monitoring data applicable to the project site is provided in Table 3.2-4.

Ozone

Ozone is a photochemical oxidant (a substance whose oxygen combines chemically with another substance in the presence of sunlight) and the primary component of smog. Ozone is not directly emitted into the air but is formed through complex chemical reactions between precursor emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_X) in the presence of sunlight. ROG are VOCs that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. NO_X are a group of gaseous compounds of nitrogen and oxygen that result from the combustion of fuels.

Emissions of the ozone precursors ROG and NO_X have decreased over the past several years because of more stringent motor vehicle standards and cleaner burning fuels. Emissions of ROG and NO_X decreased from 2000 to 2010 and are projected to continue decreasing from 2010 to 2035 (CARB 2013).

Nitrogen Dioxide

NO_2 is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as NO_X and are reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a geographical area may not be representative of the local sources of NO_X emissions (EPA 2012).

Particulate Matter

PM_{10} consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by reaction of gaseous precursors (CARB 2013; EPA 2016). $PM_{2.5}$ includes a subgroup of smaller

particles that have an aerodynamic diameter of 2.5 micrometers or less. PM_{10} emissions are dominated by emissions from area sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, construction and demolition, and particles from residential fuel combustion. Acute health effects of PM_{10} exposure include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, and premature death. Chronic health effects include alterations to the immune system and carcinogenesis (EPA 2016). Direct emissions of PM_{10} have increased slightly over the last 20 years and are projected to continue to increase slightly through 2035 (CARB 2013). Ambient $PM_{2.5}$ emissions have remained relatively steady over the last 20 years and are projected to decrease slightly through 2035 (CARB 2013).

Table 3.2-2 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[a] Health Effects	Chronic[b] Health Effects
Ozone	secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

a "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

b "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2016

MONITORING STATION DATA AND ATTAINMENT DESIGNATIONS

Air districts and CARB monitor ambient air quality to assure that air quality standards are met, and if they are not met, to also develop strategies to meet the standards. Air quality monitoring stations measure pollutant ground-level concentrations, typically ten feet above ground level. Depending on whether the standards are met or exceed, the local air basin is classified as in "attainment" or "non-attainment." Some areas are unclassified; which means no monitoring data are available. Unclassified areas are considered to be in attainment. Table 3.2-3 summarizes the state and federal attainment status for criteria pollutants in the NCCAB.

Table 3.2-3 Attainment Status Designations for Monterey County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Unclassified/Attainment	Nonattainment-Transitional
Respirable particulate matter (PM_{10})	Unclassified	Nonattainment
Fine particulate matter ($PM_{2.5}$)	Unclassified/Attainment	Attainment
Carbon monoxide (CO)	Unclassified/Attainment	Attainment
Nitrogen dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur dioxide (SO_2)[5]	Unclassified/Attainment	Attainment
Lead (Particulate)	Unclassified/Attainment	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates		Attainment
Visibly Reducing Particles		Unclassified

Source: CARB 2018

Criteria air pollutant concentrations are measured at several monitoring stations in the NCCAB. The Carmel Valley–Ford Road station is the closest and most representative station to the project area with recent data for ozone. Table 3.2-4 summarizes the air quality data from the most recent 3 years (2016–2018). Because no PM_{10} concentrations are collected at the Carmel Valley-Ford Road station, measured concentrations from the next closest station, King City-415 Pearl Street, are presented in Table 3.2-4.

Table 3.2-4 Summary of Annual Data on Ambient Air Quality (2016–2018)

	2016	2017	2018
Ozone			
Maximum concentration (1-hr/8-hr avg, ppm)	0.078/0.061	0.073/0.066	0.062/0.054
Number of days state standard exceeded (1-hr/8-hr)	0/0	0/0	0/0
Number of days national standard exceeded (8-hr)	0	0	0
Respirable Particulate Matter (PM_{10})			
Maximum concentration ($\mu g/m^3$)	71.4	95.3	78.9
Number of days state standard exceeded	*	*	*
Number of days national standard exceeded	0	0	0

Notes: $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million

* There was insufficient (or no) data available to determine the value

Source: CARB n.d.

TOXIC AIR CONTAMINANTS

According to the *California Almanac of Emissions and Air Quality* (CARB 2013), the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being diesel PM. Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a particulate matter exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are

benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Typical sources of odors include landfills, rendering plants, chemical plants, agricultural uses, wastewater treatment plants, and refineries (MBARD 2008). None of these odorous land uses are within proximity to the project site.

SENSITIVE RECEPTORS

Sensitive receptors generally include those land uses where exposure of occupants to pollutants could result in health-related risks, because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. MBARD defines a sensitive receptor as any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. Sensitive receptors include long term care hospitals, hospices, prisons, and dormitories or similar live-in housing (MBARD 2008).

The project site is on a high school campus, which is a sensitive receptor. Nearby sensitive receptors also include residential uses, the closest of which is a single-family residence adjacent to the project site on Larkin Street. Other residences near the project site are located on streets such as Larkin Street, Hermann Drive, Logan Lane, Van Buren Street, and Van Buren Circle.

3.2.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Regional and local criteria air pollutant emissions and associated impacts, as well as impacts from TACs, CO concentrations, and odors were assessed in accordance with MBARD-recommended methodologies. MBARD has also adopted two different sets of California Environmental Quality Act (CEQA) guidelines: *Guidelines for Implementing the California Environmental Quality Act* (2016), which sets forth MBARD's procedures for implementation of CEQA as a lead or responsible agency; and *CEQA Air Quality Guidelines* (2008), which provides guidance for lead agencies that prepare project-specific CEQA documentation for projects within the air district.

The 2016 guidelines establish criteria air pollutant significance thresholds for construction emissions, which were not included in the 2008 guidelines. Although the purpose of the 2016 guidelines is to describe MBARD's procedures as a lead or responsible agency for enforcing CEQA, Appendix G of the CEQA Guidelines states significance criteria established by the applicable air quality management district may be relied upon to make the air quality impact significance determinations. Thus, the project's emissions are compared to MBARD-adopted construction and operation thresholds. These thresholds are used to determine whether a project's emissions of criteria air pollutants and precursors would be significant under CEQA and result in, or contribute to, an increase in the ambient concentrations of criteria pollutants to levels that exceed the NAAQS and/or CAAQS, which represent concentration limits of criteria air pollutants to adequately protect human health. The emissions thresholds are based on the offset requirements in Air District Rule 207, Review of New or Modified Sources (MBARD 2016). As stated in Rule 207 section 1.1, Rule 207 provides for review of air pollution sources to meet new source review and prevention of significant deterioration under the Clean Air Act as well as new source review requirements under the California Clean Air Act. Section 1.1 also explains that the rule provides a mechanism to grant Authorities to

Construct to sources "without interfering with the attainment or maintenance of ambient air quality standards." Therefore, the use of MBARD's thresholds is appropriate for determining significance under CEQA.

Construction emissions of criteria air pollutants and precursors were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program, as recommended by MBARD. Modeling was based on project-specific information (e.g., construction phasing, area to be graded, types of equipment) where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location and land use type. Specific model assumptions and inputs for these calculations can be found in Appendix C. Operational emissions were assessed qualitatively by determining the change in emissions generated by the proposed project compared to existing ongoing activities.

The level of health risk from exposure to construction- and operation-related TAC emissions was assessed qualitatively. This assessment was based on the proximity of TAC-generating construction activities to nearby sensitive receptors, the number and types of diesel-powered construction equipment being used, and the duration of potential TAC exposure.

Impacts related to odors were also assessed qualitatively, based on proposed construction activities, equipment types and duration of use, overall construction schedule, and distance to nearby sensitive receptors. The focus of the analysis is construction-related odors since the proposed project does not include any operational sources of odors.

THRESHOLDS OF SIGNIFICANCE

Per Appendix G of the CEQA Guidelines and MBARD recommendations, a project's impact to air quality is considered significant if it would do any of the following:

- conflict with or obstruct implementation of the applicable air quality plan;
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard by generating emissions during construction or operation that exceed the MBARD-recommended thresholds of 137 pounds per day (lb/day) for NO_X, 137 lb/day for VOC, 82 lb/day for PM_{10}, 55 lb/day for $PM_{2.5}$, and 550 lb/day for CO;
- expose sensitive receptors to substantial pollutant concentrations, specifically, TACs emissions that can result in a cancer risk greater than one incident per 100,000 population; or
- result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people.

ISSUES NOT DISCUSSED FURTHER

Emissions and ambient concentrations of CO have decreased dramatically in the U.S. with the introduction of the catalytic converter in 1975. Elevated localized concentrations of CO are often associated with heavy traffic congestion, which most frequently occur at signalized intersections of high-volume roadways (BAAQMD 2017). MBARD provides CO screening criteria based on a level of service analysis and the Bay Area Air Quality Management District has established a screening threshold of 44,000 vehicles per hour as the level above which traffic volumes may contribute to a violation of CO standards (MBARD 2008; BAAQMD 2017). Traffic levels on local roadways in the project area are far below 44,000 vehicles per hour. The project would shift existing vehicle trips among local roadways, as explained under Impact 3.12-1 for operation. Therefore, it would not result in combined traffic levels of anywhere near 44,000 vehicles per hour on any roadway. Thus, the proposed project would clearly not result in an increase in traffic that could contribute to a violation of CO standards. CO impact would be less than significant, and this issue is not discussed further.

The proposed project would not introduce any major, permanent sources of odor (e.g., landfills, rendering plants, wastewater treatment plants). Project construction activities would temporarily generate diesel exhaust odors. Odor-generating construction activities would be localized, short-term in nature, and would dissipate rapidly with time and distance. Thus, the proposed project would not result in odor emissions that would affect a substantial number of people. Odor impact would be less than significant, and this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan

The proposed project would result in the emission of criteria air pollutants but they would not exceed MBARD's criteria air pollutant thresholds. The proposed project includes improvements to, the athletic facilities at MHS, which would not result in an increase in population. Therefore, the project would be consistent with AMBAG's population growth projections and the projections contained in the MBARD's AQMP. **No impact** would occur related to conflict with Air Quality Plans.

The proposed project would result in the emission of criteria air pollutants during construction and operation. MBARD's 2012–2015 AQMP is the applicable air quality plan for the proposed project. MBARD provides two indicators to evaluate whether a project would conflict with or obstruct implementation of the AQMP:

- Whether the proposed project would cause emissions of 137 lb/day or more of VOC or NO_x.
- Whether the proposed project would be inconsistent with the AQMP.

As discussed in Impact 3.2-2 below, the proposed project's emissions would not exceed MBARD's criteria air pollutant thresholds and thus, would not reach or exceed 137 lb/day of VOC or NO_x.

The AQMP relies on AMBAG's population projections to forecast population-related emissions. Emission growth is offset by MBARD's basinwide controls on stationary, area, and transportation sources of air pollution. Therefore, projects that are consistent with AMBAG's growth projections would also be consistent with regional air quality emissions projections and attainment status regarding CAAQS and NAAQS. Projects that would result in increases in population or employment growth beyond that projected in AMBAG's population forecasts could result in increases in vehicle miles traveled (VMT) above that planned in the attainment plan, further resulting in mobile source emissions that could conflict with a region's air quality planning efforts. If increases in VMT beyond that projected in area plans were to occur, they could have a significant adverse incremental effect on the region's ability to attain or maintain state and federal ambient air quality standards.

The proposed project includes improvements to the athletic facilities at MHS, which would not result in an increase in population. Temporary construction activities would result in slight increases in vehicle trips associated with worker commute, materials delivery, and haul truck trips. However, these additional trips would only occur during the approximately 11-month construction period. The project does not include residential development, nor would it require any new permanent employees. As discussed in Section 3.12, "Transportation/Traffic," the project would result in a reassignment of existing trips among local streets in the roadway network and would not result in the generation of new vehicle trips. Therefore, the project would be consistent with AMBAG's population growth projections and the projections contained in the MBARD's AQMP and would not result in an increase in VMT above that planned in the AQMP. The proposed project would not conflict with or obstruct the implementation of the applicable air quality plan and **no impact** would occur.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.2-2: Result in a Cumulatively Considerable Net Increase of Any Criteria Pollutant for Which the Project Region Is Non-Attainment Under an Applicable Federal or State Ambient Air Quality Standard

Construction of the athletic field improvements would generate short-term exhaust emissions of criteria air pollutants from the use of heavy-duty off-road construction equipment, haul trucks associated with materials transport, and vehicle use during worker commute. Operation of the proposed project would also generate emissions of criteria air pollutants. Emissions during construction and operation would not exceed MBARD's thresholds. The project is also consistent with the AQMP (see Impact 3.2-1). Therefore, the proposed project would not result in a cumulatively considerable contribution to a net increase of any criteria air pollutant for which the project region is non-attainment as defined by an applicable federal or state ambient air quality standard, nor would it result in greater acute or chronic health impacts compared to existing conditions. Criteria air pollutant impacts would be **less than significant**.

Criteria air pollutant emissions would be generated during construction and operation of the proposed project. These phases are evaluated separately below.

Construction

Construction of the athletic field improvements would include site preparation; grading; installation of fencing, visitor bleachers, press box, and stadium lights, trenching, paving and concrete work, and installation of the modular building. These activities would generate short-term exhaust emissions of ROG, NO_x, PM_{10}, and $PM_{2.5}$ from the use of heavy-duty off-road construction equipment, haul trucks associated with materials transport, and vehicle use during worker commute. Construction emissions would be subject to MBARD-recommended maximum daily emissions thresholds of 137 lb/day for NO_X, 137 lb/day for VOC, 82 lb/day for PM_{10}, 55 lb/day for $PM_{2.5}$, and 550 lb/day for CO.

Construction emissions of criteria air pollutants and precursors were calculated using CalEEMod, as recommended by MBARD. Estimated maximum daily emissions figures are shown in Table 3.2-5. Refer to Appendix C for detailed modeling assumptions, inputs, and outputs.

Table 3.2-5 Estimated Construction Emissions of Criteria Air Pollutants and Precursors

Construction Phase	Emissions (lb/day)				
	NOx	VOC	PM_{10}	$PM_{2.5}$	CO
Maximum Daily Emissions	55.5	4.9	15.3	8.2	34.3
MBARD Thresholds	137	137	82	55	550
Exceedance?	No	No	No	No	No

Notes: lb/day = pounds per day; NO_x = oxides of nitrogen, VOC = volatile organic compounds; PM_{10} = respirable particulate matter with aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with aerodynamic diameter of 2.5 micrometers or less; CO = carbon monoxide

Source: Appendix C

As shown in Table 3.2-5, project construction-related emissions would not exceed MBARD's thresholds of significance, which were established to meet the NAAQS and CAAQS to be protective of human health. No adverse health impacts would occur because of project-generated regional criteria air pollutant and precursor emissions.

Operation

The proposed project would result in generation of operational emissions of NO_X, VOC, PM_{10}, $PM_{2.5}$, and CO, from area-wide and mobile sources. Area-wide sources include the use of landscaping equipment to maintain the athletic field and facilities. These types of maintenance activities are already occurring at MHS and at Dan Albert Stadium. The lower field would be directly adjacent to Dan Albert Stadium, such that no substantial change in travel would be necessary to conduct maintenance at the lower field. No new staff would be required to operate or maintain the proposed improvements. Thus, an increase in air pollutant emissions because of area-wide sources or new worker commute trips would not occur.

Vehicle trips from event attendees would generate mobile-source emissions of criteria air pollutants and ozone precursors. The athletic field improvements would enable MHS to host nighttime football games on the MHS campus rather than at the nearby Monterey Peninsula College. Practices that currently must end before sundown would also be allowed to extend into the evening hours, and practices and games and that are held elsewhere such as softball would occur on the lower field. The proposed improvements would not increase the number of football game attendees. Thus, the project would shift an existing use to a different location. These locations are approximately one mile apart. It is reasonable to conclude that while driving distances for individual event attendees may change, given the proximity of MHS and the Monterey Peninsula College, changes would not be substantial in overall VMT and associated criteria pollutant emissions (refer to Section 3.12, "Transportation). Emissions may decrease as a result of students not having to travel to a different location after school to attend football games, practices, and games currently held elsewhere. Practices and other high school activities would be able to extend into the evening hours because of nighttime lighting; however, participants in these activities would already be on campus and would not generate substantial additional vehicle trips that emit criteria pollutants. Similarly, the use of the MHS facilities for public nighttime athletics would serve existing activities and not create additional events in the area; instead, already-existing events would have more facilities to choose from for venues within the City, resulting in no substantial increase in VMT and associated emissions, if there is any at all.

The proposed project would install synthetic turf on the existing dirt area adjacent to the Dan Albert Stadium. Dirt lots can be a source of localized fugitive dust emissions on windy days when the soil is dry. Thus, the proposed project would reduce a potential source of fugitive dust emissions by replacing it with a synthetic turf surface, leading to a reduction in localized fugitive dust emissions.

Summary

The proposed project would not exceed MBARD's thresholds during construction or operation. According to MBARD, a consistency analysis and determination serve as the project's analysis of cumulative impacts on regional air quality. Project emissions which are not consistent with the AQMP are not accommodated in the AQMP and will have a significant cumulative impact unless offset (MBARD 2008). As discussed in Impact 3.2-1, the proposed project would not conflict with or obstruct the implementation of the AQMP. Because the project would not exceed MBARD's thresholds and because it is consistent with the AQMP, the proposed project would not result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard, nor would it result in greater acute or chronic health impacts compared to existing conditions. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.2-3: Expose Sensitive Receptors to Substantial Toxic Pollutant Concentrations

The proposed project would result in short-term diesel exhaust emissions from heavy-duty construction equipment and haul trucks, which could affect nearby receptors during the construction period. Because of the short duration of construction and because construction would not take place near the same receptors for an extended period, diesel PM generated by the proposed project would not expose any person to an incremental increase in cancer risk greater than one incident per 100,000 population. Potential for exposure to toxic air pollutants would be **less than significant**.

The proposed project would result in short-term diesel exhaust emissions from heavy-duty construction equipment and haul trucks, which could affect nearby receptors including onsite students and school staff, and adjacent residential receptors. The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, health

risk assessments, which determine the exposure of people to TAC emissions, should be based on a 30- or 70-year exposure period, depending on whether the analysis is for a maximally exposed individual or population-wide impacts. However, such assessments should be limited to the period/duration of activities that generate TAC emissions (OEHHA 2015).

During construction, which would last approximately 11 months, diesel PM-emitting activities would be intermittent and distributed across the site such that activities would not last for more than a few to several weeks in any given location. Thus, onsite sensitive receptors and adjacent residential receptors would experience a short exposure period relative to the 30- or 70-year exposure timeframe needed to warrant a potential health risk assessments. In addition, studies show that diesel PM is highly dispersive and exposure concentrations would decline with distance from diesel PM-emitting activities (e.g., 500 feet from a freeway, the concentration of diesel PM decreases by 70 percent) (Zhu et al. 2002:1032). Given the highly dispersive properties of diesel PM and relatively short duration of construction activities, it is expected that the cancer risk associated with diesel PM generated by the proposed project would be far less than one incident per 100,000 population. Thus, the proposed project would not expose nearby sensitive receptors to a substantial concentration of TACs. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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3.3 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the project on known and unknown cultural and tribal cultural resources. Cultural resources potentially include districts, sites, buildings, structures, or objects generally older than 50 years. Cultural resources are important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include pre-historic resources, historic-era resources, and "tribal cultural resources" (the latter as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code [PRC] Section 21074).

3.3.1 Regulatory Setting

FEDERAL

Section 106 of the National Historic Preservation Act

Federal protection of resources is legislated by (a) the National Historic Preservation Act (NHPA) of 1966 as amended by 16 U.S. Code 470, (b) the Archaeological Resource Protection Act of 1979, and (c) the Advisory Council on Historical Preservation. These laws and organizations maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). While there is no federal authority over the proposed project, the National Register listing criteria for historic resources are relevant for describing the cultural values of a resource, as summarized below.

Section 106 of the NHPA and accompanying regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the main federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed in or may be eligible for listing in the NRHP. The NRHP is the nation's master inventory of known historic resources. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, and cultural districts that are considered significant at the national, state, or local level.

The criteria (36 CFR 60.4) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
3. It possesses at least one of the following characteristics:
    A. Association with events that have made a significant contribution to the broad patterns of history (events).
    B. Association with the lives of persons significant in the past (persons).
    C. Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).
    D. Has yielded, or may be likely to yield, information important to prehistory or history (information potential).

Listing in the NRHP does not entail specific protection or assistance for a property but it does guarantee recognition in planning for federal or federally assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

Secretary of Interior's Standards for Treatment of Historic Properties

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Secretary's Standards), codified in 36 CFR 67, provide guidance for working with historic properties.

The Secretary's Standards can be applied to historic properties of all types, materials, construction, sizes, and use. They include both the exterior and the interior and extend to a property's landscape features, site, environment, as well as related new construction. The Secretary's Standards offer four distinct approaches to the treatment of historic properties: Preservation, Rehabilitation, Restoration, and Reconstruction. The four distinct treatments are defined as follows:

- **Preservation** focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.
- **Rehabilitation** acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.
- **Restoration** depicts a property at a particular period of time in its history, while removing evidence of other periods.
- **Reconstruction** re-creates vanished or non-surviving portions of a property for interpretive purposes.

STATE

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are eligible for the California Register of Historical Resources (CRHR). The CRHR is a listing of State of California resources that are significant within the context of California's history. The CRHR is a statewide program of similar scope and with similar criteria for inclusion as those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are similar to the NRHP criteria and are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

1. Is associated with events or patterns of 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.
2. Is associated with the lives of persons important to local, California, or national history.
3. 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.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity.

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on historical resources, unique archaeological resources, and tribal cultural resources (TCRs).

Historical Resources

"Historical resource" is a term with a defined statutory meaning (PRC, Section 21084.1; determining significant impacts to historical and archaeological resources is described in the State CEQA Guidelines, Sections 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources include the following:

1. A resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the CRHR (PRC, Section 5024.1).

2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the CRHR (Public Resources Code, Section 5024.1).
4. The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

For CEQA review of projects involving historical resources, CEQA Guidelines Section 15064.5(b) states that "[a] project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." And, as for significance of impacts, CEQA Guidelines Section 15064(b)(3) states that "[g]enerally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings . . . shall be considered as mitigated to a level of less than a significant impact on a historical resource." Therefore, projects that comply with the Secretary's Standards benefit from a regulatory presumption that they would not result in a significant impact to a historic resource. Projects that do not comply with the Secretary's Standards may or may not cause a substantial adverse change in the significance of a historic property.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. Public Resources Code, Section 21083.2, subdivision (g), states that unique archaeological resource means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects will impact tribal cultural resources. Public Resources Code, Section 21074 states the following:

a) "Tribal cultural resources" are either of the following:

    1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

        A) Included or determined to be eligible for inclusion in the CRHR.

        B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The Act requires that upon discovery of human remains, construction or excavation activity cease and the County coroner be notified. If the remains are of a Native American, the coroner must notify the Native American Heritage Commission (NAHC), which notifies and has the authority to designate the most likely descendant (MLD) of the deceased. The Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code, Sections 7050.5 and 7052

Section 7050.5 of the Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC. Section 7052 states that the disturbance of Native American cemeteries is a felony.

Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. Section 5097.5 of the Code states the following:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

LOCAL

City of Monterey General Plan

The City of Monterey General Plan (General Plan) contains the following goals and policies, organized by element, that pertain to cultural resources and are relevant to this analysis:

Historic Preservation Element

GOAL a: Preserve historic and cultural resources in Monterey, including buildings, sites, landscapes, artifacts, and memories.

- **Policy a.2:** Encourage the collection and preservation of artifacts, print materials, oral histories, and ephemera.
- **Policy a.4:** Utilize the CEQA process for projects located in archaeologically sensitive areas to identify and mitigate potential impacts on archaeological resources.

3.3.2 Environmental Setting

Methodology

A records search of the California Historical Resources Information System (CHRIS) was conducted at the Northwest Information Center on May 28, 2019 to determine if previous surveys for historic and archaeological and historic resources had been completed in the project area or within 300 feet. Additionally, a Sacred Lands File (SLF) search was conducted through the Native American Heritage Commission.

A Historic Resources Evaluation (HRE) was prepared to identify any potentially significant built-environment resources of sufficient age that may be adversely affected by the proposed improvements at MHS. To identify and evaluate the subject area as the location of potential historical resources, a multi-step method was used. An inspection of the project site was conducted on February 25, 2020 to document existing conditions and assist in assessing and evaluating the built-environment resources for historical significance. The NRHP and CRHR significance criteria were employed to evaluate the significance of the subject property. In addition, the following tasks were performed for the study:

- The National Register and California Register property inventories were searched.
- Site-specific research was conducted utilizing historic photographs, historic topographic and quarry maps, newspaper articles and advertisement from the Monterey Herald and other regional newspapers, archival material from MHS Library, and other published sources.
- Background research of was performed at local and regional historic archives, and through internet resources such as available from Ancestry.com and GenealogyBank.com.
- Ordinances, statutes, regulations, bulletins, and technical materials relating to federal, state, and local historic preservation, designation assessment processes, and related programs were reviewed and analyzed.
- California Department of Parks and Recreation (DPR) Series 523 inventory site forms for recording historical resources have been completed for the subject resource.

For the purposes of this analysis a substantial adverse change means the physical demolition, destruction, relocation, or alteration of a resource, or its immediate surroundings, such that the ability of the historical resource to convey its significance would be materially impaired. The significance of a historic resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a resource that convey its historic significance and that justify its eligibility for inclusion in the California Register. A Preservation Treatment Plan and Secretary of Interior's Standards Review (Preservation Treatment Plan) was prepared to determine the project's consistency with the Secretary's Standards for treatment of historic properties.

Historic Resources

The CHRIS records search determined that the Larkin Street Bridge located approximately 100 feet north of the Dan Albert Stadium was determined eligible for listing in the NRHP. The HRE determined that the Dan Albert Stadium is eligible for listing in the NRHP and the CRHR, with the following elements contributing to its historical significance:

The stadium was constructed between 1917 and 1935 and made a significant contribution to the history of the City of Monterey, the students of MHS, and city residents. Construction of the stadium bleachers began in 1917. They were constructed with locally quarried Carmel stone across the slope circa 1928. The bleachers present the distinctive characteristics of masonry techniques of the early twentieth century. A high level of artistic and technical proficiency was needed by the stonemasons to create the 284-foot length of bleachers. Each of the stones used in the bleachers had to be individually selected for color, dressed to size, placed in a suitable location, and set in mortar by the masons. The facts that make the stonework uniquely rare are: (a) it was specifically designed to provide stadium seating for a high school athletic field, and (b) the bleachers have been in place and in use for 92 years. The bleachers are also the oldest structure remaining on the MHS campus and sitting in them is a shared experience of current and past students, parents, grandparents, and local friends of MHS athletic events, that spans generations. The few remaining stone walls that appear to have been constructed in 1935 by a local Civilian Conservation Corp camp have

also weathered the test of time. For these reasons, the Dan Albert stadium would be eligible for listing in the NRHP under Criterion C, and in the CRHR under Criteria 1, 2, and 3.

Activities and use of the Dan Albert Stadium have modified the existing stone bleachers over the years. Specifically, the use of heavy equipment and vehicles near the upper walkway area of the stone bleachers have damaged Carmel stones. In addition, repairs made with cement mortar and the use of asphalt to patch broken stones have also modified the area. Most recently, a curb located in the parking lot north of the Dan Albert Stadium was removed during construction of the Science Innovation Center. The curb was originally constructed with Carmel stone and ranged in height from 6 to 10 inches. The parking improvements in this area necessitated the removal to allow for access and student drop off.

Archaeological Resources

The CHRIS records search determined that no archaeological sites have been previously identified on the project site; however, no previous surveys had been conducted on the site at the time of the records search. A prehistoric site had been previously recorded within 300 feet of the project area. The NAHC SLF search response provided on May 17, 2019 showed there was no record of that site.

The project site is located in an area with a high probability to contain prehistoric archaeological resources (City of Monterey 2004: 2-41). The entire Dan Albert Stadium is maintained for stadium use, and the groundcover is not native material. The area where the lower field would be located is generally denuded of vegetation and has been graded and highly disturbed. As a result, there is a very low probability of surficial archaeological resources being present in the project area. There is a possibility, however, that given the presence of a nearby archaeological resources and the general sensitivity of the area, that subsurface archaeological resources may be present.

Tribal Cultural Resources

In compliance with PRC Sections 21080.3.1, MPUSD sent letters to six Native American tribes listed below on March 3, 2020. No requests for consultation were received during the 30-day response period for AB 52 as defined in PRC 21080.3.1. Therefore, compliance with AB 52 requirements has been completed. The contacted tribes are:

- Esselen Tribe of Monterey County, Tom Little Bear Nason, Chairperson
- Costanoan Rumsen Carmel Tribe, Tony Cerda, Chairperson
- Ohlone/Costanoan-Esselen Nation, Louise Miranda-Ramirez, Chairperson
- Amah Mutsun Tribal Band, Valentin Lopez, Chairperson
- Amah Mutsun Tribal Band Mission San Juan Bautista, Irenne Zwierlein, Chairperson
- Indian Canyon Mutsun Band of Costanoan, Ann Marie Sayers, Chairperson

3.3.3 Impacts and Mitigation Measures

THRESHOLDS OF SIGNIFICANCE

Based on State CEQA Guidelines Appendix G, the project would result in a significant impact on cultural and tribal cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe
- Disturb any human remains, including those interred outside of dedicated cemeteries

ISSUES NOT DISCUSSED FURTHER

Assembly Bill (AB) 52 (Statutes of 2014) requires lead agencies to consult with California Native American tribes traditionally and culturally affiliated with a geographic area of a proposed project when a California Native American Tribe makes a written request for a consultation to the lead agency prior to the agency's release of a notice of a negative declaration, mitigated negative declaration, or environmental impact report for a project. (Public Resources Code § 21080.3.1(b)(1).)

Pursuant to the provisions of AB 52, on March 3, 2020, the District distributed a formal notification to California Native American tribes affiliated with the geographic area of the Project of the District's determination to undertake a project and notification of a consultation opportunity.

On June 7, 2020, the District received a letter from the Ohlone/Costanoan-Esselen Nation ("OCEN") requesting a consultation. OCEN's June 7th letter did not identify specific tribal cultural resource concerns.

On June 16, 2020, the District initiated the consultation process by responding to OCEN's request for consultation with a request to schedule a telephone conference with OCEN's representative. The District did not receive a response to its June 16, 2020 letter. On September 4, 2020 the District sent a subsequent letter to the OCEN representative to confirm if OCEN was still interested in consulting with the District. The District did not receive a response to its September 4, 2020 letter.

Pursuant to Public Resources Code section 21082.3(d)(2), a lead agency may certify an environmental impact report or adopt a mitigated negative declaration for a project with a significant impact on an identified tribal cultural resource if the California Native American tribe has requested consultation and has failed to provide comments to the lead agency, or otherwise failed to engage, in the consultation process.

OCEN has not provided comments to the District and has failed to engage in the consultation process. No other consultation requests have been received by the District.

Based on the sequence of actions described above, the District has satisfied its obligations under AB 52.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of a Known Historical or Archaeological Resource

Project improvements would make changes to a known historical resource, i.e., the stone bleachers of Dan Albert Stadium. The changes have been designed consistent with a Preservation Treatment Plan that meets the *Secretary of the Interior's Standards for the Treatment of Historic Properties,* thus preserving the features of the resource that contribute to its historical significance. Alteration of this historical resource would therefore result in a **less than significant** impact.

The Larkin Street Bridge located approximately 100 feet north of the Dan Albert Stadium was determined eligible for listing in the NRHP and is therefore a historical resource under CEQA. The project does not propose any changes to the Larkin Street Bridge. Therefore, no impact to this resource would result.

In addition, the Dan Albert Stadium is eligible for listing in the NRHP under Criterion C, and in the CRHR under Criteria 1, 2, and 3, and is therefore a historical resource under CEQA. The proposed project would add a concrete curb and guard/handrails for ADA-compliant seating, and the top walkway area of the existing stone bleachers would

be paved with concrete. In addition, a pre-fabricated press box would replace the temporary press box located directly behind the stone bleachers.

Proposed improvements have been designed to meet the Secretary's Standards, as detailed in the project's Preservation Treatment Plan (Mineweaser & Associates 2020), specifically, standards for preservation and rehabilitation. Improvements to the top walkway area and raised curb of the existing stone bleachers would require removal of Carmel stones on the walkway area and raised curb. As shown in Figure 3.3-1, the surface of the walkway area consists of a combination of Carmel stones and asphaltic concrete. Prior to the removal of Carmel stones, the existing mortar binding the Carmel stones would be analyzed and tested to recreate the original mixture used for replacing removed stones. New concrete surface would be added to the walkway area with a concrete extension on the existing curb. Following installation of the concrete surface and guard/handrails, within and adjacent to the top walkway area, the Carmel stone that were previously removed would be replaced along the concrete curb using the recreated mortar mixture. The ADA-compliant seating would be located on the top walkway area, as well, to minimize the number of Carmel stones that would be disturbed for the proposed project. All stonework involving Carmel stone would be conducted by a qualified mason experienced in working with Carmel stone or similar stonework. Any remaining Carmel stone would be salvaged and stockpiled by MPUSD for any future repairs. The guard/handrails would be designed to blend in with other chain link fencing at the Dan Albert Stadium, and the corrugated metal sides of the press box would be painted gray consistent with the galvanized color of metal accessories in a sports field of similar time periods. Project improvements would retain the character of the mason stone bleachers by minimizing the number of mason stones that would be disturbed, recreating the original mortar mixture, replacing removed mason stones removed for the proposed project, and salvaging any remaining stones for future use.

Source: Mineweaser & Associates 2020

Figure 3.3-1 MPUSD Stone Bleachers Walkway Area and Raised Curb

While the project would result in the alteration of a known historical resource and its immediate surrounding, project improvements would comply with Secretary's Standards for preservation and rehabilitation. Therefore, the project would not materially impair the resource values contributing to its historical significance and eligibility for the NRHP or CRHR and would not result in a substantial impact to an historical resource. Impacts would be **less than significant.**

Mitigation Measures

No mitigation is required for this impact.

Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Previously Undiscovered Historical Resource or Archaeological Resource

Project-related ground disturbing construction activities could result in discovery or damage of undiscovered subsurface unique archaeological resources. This would be a **potentially significant** impact.

The project site is in an area with a high sensitivity for (i.e., probability of) finding subsurface prehistoric archaeological resources (City of Monterey 2004: 2-41). As a result, ground disturbing activities such as grading and excavation (e.g., trenching for utility conduit and drainage infrastructure), during construction of the multi-use field, could disturb previously undiscovered or unrecorded archaeological resources, if present. These construction activities could damage or destroy previously undiscovered subsurface archaeological resources. Once the construction phase is over, no additional ground disturbing activities would occur in previously undisturbed strata, and there would be no potential for damaging previously undiscovered historical or archaeological resources. The potential to damage resources during construction would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.3-2a: Train Workers to Respond to the Discovery of Cultural Resources

Prior to commencement of construction activities, all project personnel conducting ground-disturbing activities shall receive training regarding the potential for exposing subsurface cultural resources, appropriate work practices for implementing mitigation measures and complying with applicable laws and regulations, and how to recognize possible buried resources. The training shall include a presentation of procedures to follow upon discovery or suspected discovery of cultural resource materials, including Native American remains and their treatment, and actions that may be taken if there is violation of applicable laws.

Mitigation Measure 3.3-2b: Follow Appropriate Procedures in the Case of a Discovery of an Unidentified Cultural Resource

In the event that any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted and a qualified professional archaeologist shall be retained to assess the significance of the find. An exclusion area shall be established with signage and protective barriers. Entry into the area shall be limited to authorized personnel and a qualified cultural resources specialist or archaeologist, and the contractor shall immediately notify MPUSD.

Preservation in place (avoidance) is the preferred method of mitigation for impacts on cultural resources (CEQA Guidelines section 15126.4(b)(3)(A)) and is required unless the cultural resources specialist or qualified archaeologist determines that another method would provide superior mitigation of impacts to the resource. No additional mitigation is necessary if the resource can be completely avoided, but the resource shall be recorded on DPR 523 forms, which shall be filled with the Northwest Information Center.

The qualified cultural resources specialist or archaeologist shall follow the procedures below if the resource cannot be completely avoided.

- **Determine if the resource is an historical resource:** The qualified cultural resources specialist or archaeologist shall determine if there is a potential for the resource to be a historical resource. Work can resume if there is no potential for the resource to qualify as a historical resource. If there is a potential for the resource to be a historical resource, the qualified cultural resources specialist or archaeologist shall prepare an Evaluation Plan.
- **Prepare an Evaluation Plan:** The Evaluation Plan shall be prepared specific to the resource and shall contain procedures used to determine if the discovered resource is an historical resource. The Evaluation Plan shall include enough discussion of background and context to provide for evaluation of the resource under the historical

resource criteria. It shall include a description of procedures that will be used to gather information for the evaluation, which may include but not be limited to excavation, written documentation, interviews, and photography. For any archaeological resource testing, the Evaluation Plan shall describe testing procedures, such as surface collection, test excavations, analysis methods, and reporting procedure.

- **Implement Evaluation Plan:** The evaluation plan shall be implemented in the field, and the subsequent report shall evaluate the resource based on the criteria contained in the Evaluation Plan, making a conclusion whether the resource is historical. If the resource is not historical, protective barriers can be removed and work can continue in the area. If the resource is historical, the qualified cultural resources specialist or archaeologist shall prepare a Data Recovery Plan.
- **Prepare a Data Recovery Plan:** A Data Recovery Plan shall be prepared consistent with CEQA Guidelines Section 15126.4(b)(3)(C) and Public Resources Code Section 21083.2. The Data Recovery Plan will contain a description of how data recovery will mitigate impacts to the resource to less than significant. It shall contain a description of level of effort (e.g., quantity of excavation units), excavation procedures, laboratory methods, types of samples to be collected (e.g., sediment), and the techniques that will be used to obtain information about the features of the site that make it a historical resource. Additionally, the Data Recovery Plan shall include a description of the reporting procedure. Once the Data Recovery Plan is completed, field work can commence. Work can resume in the area once the qualified cultural resources specialist/archaeologist determines that no additional information needs to be recovered to satisfy fieldwork, reporting, and documentation requirements to reduce impacts to less than significant.
- **Prepare a Data Recovery Report:** A Data Recovery Report shall be prepared following completion of data recovery field work. The Report shall present results of data recovery, including field methods used, location and size of excavations, and analysis of materials recovered. It shall contain conclusions made based on the field work as well as where any recovered artifacts, samples, and documentation will be curated. Curation facilities must meet requirements of 36 Code of Federal Regulations 79. The Data Recovery Report shall be submitted to the Northwest Information Center, with all impacted known resources recorded on DPR 523 forms.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-2a would ensure that workers are aware of their responsibility and procedures to follow should they encounter subsurface cultural resources. Mitigation measure 3.3-2b would ensure work is halted until all appropriate professionally accepted and legally compliant procedures are followed for discovery of prehistoric or historic-era subsurface archaeological features or deposits. The impact would be **less than significant**.

Impact 3.3-3: Disturb Human Remains

Although no evidence exists that suggests humans remains, including those of Native American ancestry, are present on the project site, ground-disturbing construction activities could uncover previously unknown human remains. The MPUSD and project applicant would comply applicable laws that dictate procedures to follow when encountering human remains. Impacts may occur if these procedures are not followed or if work continues near the discovery. Therefore, this impact would be **potentially significant**.

There are no known human remains, including those of Native American ancestry on the project site. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the project site and could be uncovered during construction of the multi-use field.

If human remains or suspected human remains are identified, the contractor and District shall comply with relevant California law, including, but not limited to CEQA Guidelines section 15064.5(e); Public Resources Code Sections 5097.94, 5097.98, and 5097.99; and California Health and Safety Code Section 7050.5. These statutes require that, if human remains are discovered during construction activities, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the Monterey County coroner shall be immediately notified. As the statutory and regulatory processes unfold, significant impacts could occur if the remains are further disturbed.

Additionally, human remains may be subject to disturbance if workers are unaware of procedures that need to be followed. This impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 3.3-2a: Train Workers to Respond to the Discovery of Cultural Resources

See full text above under Impact 3.3-2.

Mitigation Measure 3.3-3: Halt Construction and Establish an Exclusion Zone Around Potential or Confirmed Human Remains

In the event that human remains or suspected remains are identified, the area where the remains are identified shall be flagged off or otherwise delineated, and all construction within 100 feet shall immediately cease. The qualified cultural resources specialist or archaeologist shall examine the materials and determine whether they might be human remains. If the materials are determined to potentially be human remains, the District shall comply with applicable laws regarding notification of the coroner. Work shall not resume until compliance with applicable laws and regulations (e.g., CEQA Guidelines section 15064.5(e); Public Resources Code Sections 5097.94, 5097.98, and 5097.99; and California Health and Safety Code Section 7050.5) has concluded.

Significance after Mitigation

Mitigation Measure 3.3-2a would ensure that workers are aware of their responsibilities and procedures to follow should they encounter potential human remains. Mitigation Measure 3.3-3 would ensure work is halted until all legal requirements are followed for any discovery of potential human remains. Impacts would be **less than significant**.

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3.4 BIOLOGICAL RESOURCES

This section addresses common and sensitive biological resources that could be affected by implementation of the proposed Monterey High School Stadium Improvements Project. This evaluation is based on data collected during a reconnaissance-level survey of the project site conducted by an EMC Planning Group Biologist on May 20, 2019; a review of aerial photographs of the project area; local and regional documents; and a search of the California Department of Fish and Wildlife (CDFW 2020) California Natural Diversity Database (CNDDB 2020).

3.4.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 U.S.C. Section 1531 et seq.), the U.S. Fish and Wildlife Service (USFWS) regulates the taking of species listed in the ESA as threatened or endangered. In general, persons subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, 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. Section 10 of the ESA applies if a non-federal agency is the lead agency for an action that results in take and no other federal agencies are involved in permitting the action. Section 7 of the ESA applies if a federal discretionary action is required (e.g., a federal agency must issue a permit), in which case the involved federal agency consults with USFWS.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it will be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all birds native to the United States.

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from California Department of Fish and Wildlife (CDFW) is required for projects that could result in the "take" of a plant or animal species that is listed by the state as threatened or endangered. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but does not include "harm" or "harass," as does the federal definition. As a result, the threshold for take is higher under CESA than under the federal ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit.

California Fish and Game Code Sections 3503 and 3503.5—Protection of Bird Nests and Raptors

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical

violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

Fully Protected Species under the California Fish and Game Code

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take.

LOCAL

City of Monterey General Plan

The City of Monterey General Plan contains several policies directly or indirectly related to biological resources and the project, including the following:

Conservation Element

GOAL b.1. Protect creeks, lakes, wetlands, beaches, and Monterey Bay from pollutants discharged to the storm drain system.

GOAL d. Protect the character and composition of existing native vegetative communities. Conserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special-status plant and wildlife species.

- **Policy d.1.** Protect existing native plants and promote the use of locally occurring, native vegetation for public and private landscaping and revegetation efforts.
- **Policy d.5.** Reduce biotic impacts to a less-than-significant level on project sites by ensuring that mitigation measures identified in biotic reports are incorporated as conditions of approval for development projects. Compliance with the City Tree Ordinance is the mechanism that will be used to address impacts of tree removals. As mitigation for significant impacts, avoidance, replacement, restoration of habitats on- or off-site, or other measures may be required.

City of Monterey Tree Ordinance

The City Tree Ordinance, located in Chapter 37 of the Monterey City Code, was established to protect and preserve City and private trees. To accomplish this, the City regulates trimming and removal of trees designated as a "protected tree" per the City Code (generally, those trees exceeding 6 inches in trunk diameter at 4 feet 6 inches above grade (developed parcels) or exceeding 3 inches in trunk diameter at 4 feet 6 inches above grade (undeveloped parcels)). Standards for the City Forester's review of permit applications are contained within the ordinance, and some discretion is given to determine mitigation. There are currently 15 trees in the City that are designated "Local Landmark Tree," which classifies them as trees that should be protected because of their unusual size, prominence or health and significant value to the community. No Local Landmark Trees are located on the project site.

3.4.2 Environmental Setting

VEGETATION

The project site is heavily disturbed and is largely devoid of vegetation. From a regional perspective, the site is on the border between the Mixed Monterey Pine Forest and Urban/Non-Vegetated habitat types, with most of the project site occurring in the Urban/Non-Vegetated habitat type (City of Monterey 2005). Most of the project site is occupied by the Dan Albert Stadium, associated facilities/infrastructure, and a dirt lot area currently used as an overflow parking lot. There is vegetation along the edges of the stadium and lower field area, which consists mainly of non-native grasses such as ripgut brome (*Bromus diandrus)*. These areas also contain coast live oak *(Quercus agrifolia),* eucalyptus (*Eucalyptus* sp.), and Monterey pine (*pinus radiata*).

COMMON WILDLIFE SPECIES

Because of its location in the City of Monterey, common urban wildlife are expected to be present on site. These species include raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), and California ground squirrel (*Otospermophilus beechyi*), mice (*Mus musculus*, *Reithrodontomys megalotis*, and *Peromyscus maniculatus*), and California vole *(Microtus californicus*). During the reconnaissance survey, three California ground squirrel or vole burrows were spotted in grassy areas in the southeastern portion of the dirt area. American crow (*Crovus brachyrhynchose*) and European starling (*Sturnus vulgaris*) were reported flying overhead of the project site (MPUSD 2019).

SENSITIVE BIOLOGICAL RESOURCES

Special-Status Species

Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- species listed or candidates for listing by the State of California as threatened or endangered under CESA (14 CCR Section 670.5);
- species identified by CDFW as Species of Special Concern;
- species listed as Fully Protected under the California Fish and Game Code (FGC) (Section 3511 for birds, Section 4700 for mammals, Section 5050 for reptiles and amphibians, and Section 5515 for fish);
- plants listed as rare under the California Native Plant Protection Act (FGC Section 1900 et seq.);
- species afforded protection under local or regional plans, policies, or ordinances;
- plants considered by CDFW to be "rare, threatened or endangered in California" (California Rare Plant Ranks of 1A, presumed extinct in California and either rare or extinct elsewhere; 1B, considered rare or endangered in California and elsewhere; 2A, presumed extinct in California but common elsewhere; and 2B, considered rare or endangered in California but more common elsewhere). Note, that while these rankings do not afford the same type of legal protection as ESA or CESA, the uniqueness of these species requires special consideration under Section 15380 of the State CEQA Guidelines (14 CCR Section 15000 et seq.); or
- taxa (i.e., taxonomic category or group) that otherwise meet the definition of rare or endangered under Section 15380 of the State CEQA Guidelines (14 CCR Section 15000 et seq.).

The term "California species of special concern" is applied by CDFW to animals not listed under ESA or CESA, but that are considered to be declining at a rate that could result in listing, or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW's fully protected status was California's first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Appendix D provides a list of special-status species that could potentially occur in the project vicinity. The list was developed through a review of observations made during the May 20, 2019 site surveys, as well as a query of CDFW's California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California. The results of these queries were then reviewed, and a determination made of whether they could occur on site. The determination was made based on whether suitable habitat was present on site, as well as the proximity of known occurrences.

The majority of species with a potential to occur within the project vicinity are not expected to occur on site. As shown in Appendix D, only two sensitive species have the potential to occur on the project site:

- Monterey pine (*Pinus radiata*): Monterey pine occurs in closed-cone coniferous forest and cismontane woodland. Three primary stands are native to California. It occurs on dry bluffs and slopes between 197 and 410 feet in elevation. It has a California Rare Plant Rank of 1B.1. This species was observed in the project area during the May 2019 site survey.
- Monterey cypress (*Hesperocyparis macrocarpa*): Monterey cypress is typically found in closed-cone coniferous forest at elevations ranging from 30 to 100 feet. It has a California Rare Plant Rank of 1B.2. Nearby occurrences suggest this species may occur within the project area.

Sensitive Natural Communities and Habitats

Sensitive natural communities include those that are of special concern to resource agencies or are afforded specific consideration through CEQA or other federal or State laws. Sensitive natural communities may be of special concern to regulatory agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. Many of these communities are tracked in CDFW's CNDDB. Sensitive habitats include habitats considered important to conservation by local, regional, and state agencies. Most types of wetlands and riparian communities are considered sensitive habitats due to their limited distribution in California and these habitats are regulated under state and federal laws.

There are no sensitive natural communities within or adjacent to the project site. A review of the National Wetlands Inventory was done to determine the closest jurisdictional aquatic features to the proposed project. Results indicated a freshwater forested/shrub wetland habitat less than a quarter mile to the south of the project site and riverine habitat adjacent to the project site at the northern boundary of the stadium (USFWS 2020).

WILDLIFE MOVEMENT CORRIDORS

There are no critical regional wildlife or riparian linkages in the City of Monterey (AMBAG n.d.). The project site has no contiguous habitat areas that provide for movement of wildlife through the project site. The Monterey area is along the Pacific Flyway, an important north-south route for migratory birds. There are no features on the project site that are particularly important for birds migrating along the Pacific Flyway.

HABITAT CONSERVATION PLANS AND NATURAL COMMUNITY CONSERVATION PLAN

No habitat conservation plans or natural community conservation plans cover the project site (CDFW 2020).

3.4.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This impact evaluation is based on data collected during a reconnaissance-level field survey conducted in May 2019, a review of aerial photographs, and information from several previously completed documents that address biological resources in the project vicinity.

THRESHOLDS OF SIGNIFICANCE

An impact on biological resources is considered significant if implementation of the project would do any of the following:

- 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 CDFW or USFWS;
- 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 CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands (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; and/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.

ISSUES NOT DISCUSSED FURTHER

The project site is located on the MHS campus and is not located in an area of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, impacts related to consistency with conservation planning are not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.4-1: Substantially Affect Special-Status Species Either Directly or Through Habitat Modifications

The project site contains suitable habitat for Monterey pine and Monterey cypress, but would remove none of these species. The project would involve removal of three mature oak trees that are surrounded by developed school grounds, so their habitat value is limited. There would be **a less than significant** impact.

This section evaluates the potential impacts to species determined to have a high likelihood of occurring on site, which includes Monterey pine and Monterey cypress. Monterey pine is known to occur on site, and Monterey cypress could occur on site. Both trees are present in the area surrounding MHS. As designed, the proposed project would not remove any Monterey pine or Monterey cypress trees. The project would include removal of three oak trees, but they are surrounded by developed school grounds, so their habitat value is limited. Therefore, impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.4-2: Substantially Affect Nesting or Migratory Birds or Bats Either Directly or Through Habitat Modifications

Tree removal and project construction could potentially remove habitat or disturb nests of nesting or migratory birds. Operation of the project would not adversely affect bats and birds. Construction impacts would be **potentially significant**, because of the potential to remove active nests.

Construction

Mature trees and shrubs located within and adjacent to the project site could serve as potential habitat for nesting and migratory birds. Project construction would remove three oak trees that could be suitable habitat for migratory or nesting birds. Construction-related activities, particularly those that involve ground disturbance, could potentially disturb nesting birds nearby or within the project site. Disturbance of nesting bird species during nesting season (January 15 through September 15) could result in the nest abandonment or the loss of fertile eggs or fledglings. Nesting birds are protected by the California Fish and Game Code, Sections 3503 and 3503.5, and the federal MBTA. There is not suitable bat roosting habitat nearby, although bat species may forage in the area at night. No construction would occur at night, so substantial disturbance of bats is not expected during construction. The risk of bird nest destruction and nest abandonment during construction would be **potentially significant**.

Operation

Tree removal and vegetation grubbing would not occur as part of operation; minor maintenance to minimal landscaping would occur, which would not affect nesting or migratory birds.

Research indicates that urban nighttime lighting can adversely affect birds. There is evidence to show that in some cases lighting can impact bird species by drawing them toward development where they may collide with structures; however, these studies largely relate to sources of light that are substantially prominent and intense in comparison to their surroundings, such as offshore oil platforms (Huppop et al. 2016) and the light beams that are part of the September 11 memorial in New York City (Furuya 2017). The latter study found that the light installation "strongly concentrates and disorients migrants flying over a heavily urbanized area" (Furuya 2017). Even if birds do not collide with structures, there is a concern that once a bird is within a light beam, they are reluctant to return to darker areas and will fly until exhaustion (Ogden 1996).

As discussed in Impact 3.1-3, lighting at the site would largely be well within industry standards for glare and spill. Stadium lighting would be on for a limited number of times per year, and would not be used past 10 p.m. except for limited circumstances where athletic games proceed past the planned end time. And, as shown in visual simulations used for Impact 3.1-3, the addition of lighting to existing lights is noticeable but not substantial. The proposed project is also within 1,000 feet of downtown Monterey, which is also a source of diffuse light. As a result, the proposed project does not mimic the conditions in studies of avian deaths associated with light sources, and such impacts cannot be attributed to the proposed project.

Other concerns of bird mortality relate to construction of tall structures. There is considerable evidence to support that built structures contribute at a large rate to avian mortality. At the same time, consistent data and reporting has been called "unavoidably speculative" (Ogden 1996). Studies tend to focus on tall buildings (Kolirin 2019) or specific types of structures like wind turbines (USFWS 2018), neither of which are comparable to light standards. Buildings are often problematic for birds because of collisions with windows, and wind turbines have substantial moving parts. Therefore, it is not expected that birds will collide with the solid light standards.

Foraging bats may be found in the project area at night. Nighttime lighting can adversely affect bats while foraging at night. For example, insects may be attracted to certain kinds of light, which would then attract bats. Some bat species avoid LED lights. Studies generally focus on overall urban lighting (e.g., Rowse et al. 2015), although at least one study has focused on sport stadiums (Schoeman 2015). Some species benefit through better foraging, while others do not, which could lead to a reduction in biodiversity. However, similar to lighting impacts to birds, lighting at the site would largely be well within industry standards for glare and spill. The number of nighttime activities would be limited in quantity and duration. Stadium lighting would be on for a limited number of times per year and would not be used

past 10pm except for limited circumstances where athletic games proceed past the planned end time. As a result, the lighting may have some effect on bat foraging, but evidence does not exist to definitively conclude it would result in effects on biodiversity. Operational impacts would be less than significant.

Mitigation Measure

Mitigation Measure 3.4-2: Avoid nesting birds

To minimize the potential for loss of active bird nests, project activities (e.g., ground disturbance, demolition, use of heavy equipment, presence of construction crews) shall commence during the nonbreeding season (September 1-January 31), if feasible. If all project activities are completed during the nonbreeding season, no further mitigation would be required.

If tree removal cannot avoid the nesting season, prior to commencing project activities between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nests on any tree, other vegetation, or structure within 500 feet of the project footprint. The surveys shall be conducted no more than 14 days before construction begins. If no active nests are found during focused surveys, no further action under this measure will be required. If active nests are observed during the preconstruction surveys, the biologist shall notify CDFW. No tree shall be removed if an active bird nest is present. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives shall be evaluated and implemented to the extent feasible.

If avoidance of the nesting season is not feasible or conflicts with project objectives, construction shall be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest is no longer active. Buffers may be reduced in consultation with CDFW. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of each nest to characterize "normal" bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g. defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active.

A survey report shall be prepared to document survey results. If monitoring is needed, the report shall also include the results of monitoring.

Significance after Mitigation

Mitigation Measure 3.4-2 includes pre-construction and construction requirements to avoid and minimize potential impacts to migratory and nesting birds. Construction shall occur either outside of the nesting season or, if it occurs during the nesting season, avoidance and buffers shall be implemented to prevent nest abandonment. Impacts would be **less than significant** level with incorporation of Mitigation Measure 3.4-2.

Impact 3.4-3: Substantially Affect State or Federally Protected Wetlands (Including, but not Limited to, Marsh, Vernal Pool, Coastal, etc.) Through Direct Removal, Filling, Hydrological Interruption, or Other Means

No state or federally protected wetlands are located on the project site. Project construction would occur on previously disturbed areas and include minimal ground disturbance. Erosion and sedimentation controls as well as measures to minimize polluted runoff are included in the project. Direct removal, filling, or hydrological interruption to state or federally protected are not included as part of the project. Impacts would be **less than significant**.

There are no state or federally protected wetlands or waters on the project site. There is a freshwater forested/shrub wetland area approximately 160 feet to the south of the stadium beyond the parking area and a riverine area approximately 264 feet north of the stadium (USFWS 2020). The project does not include removal, filling, or hydrological interruption of these features. Project construction would occur on a previously disturbed area and

would include grading, which has the potential to result in erosion and sedimentation. As discussed in Impact 3.9-1, the project would adhere to erosion and sedimentation controls and measures outlined in a SWPPP to minimize polluted runoff. Therefore, the project would not substantially affect state or federally protected wetlands. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.4-4: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Identified in Local or Regional Plans, Policies, or Regulations or by CDFW or USFWS

No riparian habitat or other sensitive natural communities are located on the project site. Erosion and sedimentation controls as well as measures to minimize polluted runoff are included in the project and would reduce impacts to nearby riparian and riverine habitat. Impacts would be **less than significant**.

The project site does not contain riparian habitat or other sensitive natural communities. There is a freshwater forested/shrub wetland area approximately 160 feet to the south of the stadium beyond the parking area and a riverine area approximately 264 feet north of the stadium (USFWS 2020). Project construction would not occur in these areas. As discussed for Impact 3.4-2, grading on the project site could result in erosion and sedimentation, which could adversely affect the riparian habitat. As discussed in Impact 3.9-1, the project would adhere to erosion and sedimentation controls and measures outlined in a SWPPP to minimize polluted runoff. Therefore, the nearby riparian and riverine habitat would not be substantially affected. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.4-5: Conflict With Any Local Policies or Ordinances Protecting Biological Resources, such as a Tree Preservation Policy or Ordinance

The project would comply with all local policies or ordinances protecting biological resources, including General Plan policies from the Conservation Element and the City's Tree Ordinance. Impacts would be **less than significant**.

The project would not conflict with General Plan policies and goals protecting biological resources, as follows:

GOAL b.1: The project would implement and comply with SWPPP requirements, as discussed under Impact 3.9-1. The project would also have catch basins to pretreat runoff before entering the storm drainage system, as discussed under Impact 3.9-3. These actions would prevent pollutants from being discharged to the storm drain system.

GOAL d. The project site has minimal native vegetation. As discussed in Impact 3.4-1, native mature Monterey cypress and Monterey pine would be avoided, and saplings would be relocated.

- **Policy d.5.** As described for Impacts 3.4-1 through 3.4-4, all impacts would either be less than significant or reduced to less than significant with mitigation.

The project would require removal of three oak trees on the lower field that separate the Dan Albert Stadium from the dirt lot and add landscaped areas along the perimeter of the project site. The District would obtain a tree removal permit in accordance with the City's Tree Ordinance. Therefore, there would be no conflict. There would be **no impact** related to conflict with local policies or ordinances.

Mitigation Measures

No mitigation is required for this impact.

3.5 ENERGY

This section considers whether the proposed project would result in inefficient, wasteful, and unnecessary consumption of energy. It describes existing energy production and consumption within the City, as well as potential energy use and related impacts from the project. This section evaluates the potential effects that implementation of the project may have on energy resources.

3.5.1 Regulatory Setting

FEDERAL

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Under this act, the National Highway Traffic and Safety Administration, is responsible for revising existing fuel economy standards and establishing new vehicle economy standards. The Corporate Average Fuel Economy program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Three Energy Policy Acts have been passed, in 1992, 2005, and 2007, to reduce dependence on foreign petroleum, provide tax incentives for alternative fuels, and support energy conservation.

STATE

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The Act established state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates investor-owned utilities in the energy, rail, telecommunications, and water fields.

State of California Energy Action Plan

The CEC, CPUC, and now defunct Consumer Power and Conservation Financing Authority prepared the first State of California Energy Action Plan (EAP) in 2003 to establish shared goals and specific actions to ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. The EAP was updated in 2005 and 2008 to address the emerging importance of climate change, transportation-related energy issues, and research and development activities. The EAP calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs (CEC and CPUC 2008).

Renewable Energy Regulations

Senate Bill (SB) X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond.

SB 100, signed in September 2018, requires that all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, supply 44 percent of retail sales from renewable resources by December 31, 2024, 50 percent of all electricity sold by December 31, 2026, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The law also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

California Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings. CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer greenhouse gas (GHG) emissions.

The 2019 California Energy Code was adopted by CEC on May 9, 2018 and will apply to projects constructed after January 1, 2020. Non-residential buildings are anticipated to reduce energy consumption by 30 percent as compared to the 2016 California Energy Code primarily through prescriptive requirements for high-efficiency lighting (CEC 2018). The Energy Code is enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary because of local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in the California Energy Code.

California Green Building Standards Code (Title 24, Part 11)

The California Green Building Standards Code (CALGreen) was developed in 2007 to meet the mandates of Assembly Bill (AB) 32. CALGreen applies to nonresidential structures that include, but are not limited to, new buildings or portions of new buildings, additions and alterations, and all occupancies where no other state agency has the authority to adopt green building standards applicable to those occupancies. It contains energy efficiency, water efficiency and conservation, and material conservation and resource efficiency standards.

Transportation and GHG-Related Regulations

Various regulatory and planning efforts are aimed at reducing dependency on fossil fuels, increasing the use of alternative fuels, and improving California's vehicle fleet. SB 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. Pursuant to AB 2076 (Chapter 936, Statutes of 2000), CEC and the CARB prepared and adopted a joint agency report in 2003, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per-capita VMT (CEC and CARB 2003). AB 1007 (Chapter 371, Statues of 2005) required the CEC to prepare the State Alternative Fuels Plan to increase the use of alternative fuels in California. In January 2012, CARB approved the Advanced Clean Cars program which requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025 (CARB 2016).

Several statutory, regulatory, regulatory, or executive order measures, such as AB 32 and the Climate Change Scoping Plan (CARB 2017), Executive Order B-30-15, SB 32, and AB 197, were established to reduce GHGs. They offer the co-benefits of reducing California's dependency on fossil fuels and making land use development and transportation systems more energy efficient.

LOCAL

City of Monterey

The *City of Monterey General Plan* (City of Monterey 2016) contains policies that promote energy efficiency and conservation, sustainable land use patterns, alternative modes of transportation, and water conservation. Policies directly related to energy use that are relevant to the proposed project include:

- **Policy j.1.** Implement state energy and green building and conservation standards.
- **Policy e.1.** Encourage energy sources, which provide part or all of the energy needed for buildings.

- **Program m.1.5.** Develop and continue conservation programs to reduce water consumption, including but not limited to retrofit, stormwater reuse, water reclamation programs for golf course and other uses, greywater reclamation programs for both new and existing developments. Encourage conservation and reclamation of water at military and educational institutions.
- **Program m.1.7.** Encourage landscaping with drought-resistant native plants in both existing and proposed public and private development projects.

The City's Municipal Code Article 20A, Landscaping Regulations, adopts the state Model Water Efficient Landscape Ordinance, the Monterey Peninsula Water Management District Rule 142 (Water Efficiency Standards) and Rule 143 (Water Efficiency Standards for Existing Non-Residential Uses). These ordinances establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes and establish water efficiency standards for new and existing non-residential uses.

Monterey Peninsula Unified School District

The Monterey Peninsula Unified School District (MPUSD) established an Energy Conservation Program to reduce energy and water use and improve efficiency. Since 2012, MPUSD has reduced energy use by 36.9 percent through a combination of education, district-wide policies, retrofits, and grants. The MPUSD Facility Department has installed water-saving fixtures; established guidelines and energy saving protocols for staff; managed irrigation with Hydro-Point WeatherTrak smart controllers; and provided grants for storm water collection projects, school bus replacement, electric vehicles, and low-impact development (MPUSD n.d.).

3.5.2 Environmental Setting

PHYSICAL SETTING

Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California is natural gas. In 2014, approximately 35 percent of natural gas consumed in the state was used to generate electricity. Residential land uses represented approximately 17 percent of California's natural gas consumption with the balance consumed by the industrial, resource extraction, and commercial sectors (EIA 2014). Power plants in California generate approximately 70 percent of the in-state electricity demand, with large hydroelectric in the Pacific Northwest and power plants in the Southwestern U.S. generating the remaining electricity (CEC 2017). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors.

Energy Facilities and Services in the Project Area

Pacific Gas and Electric Company (PG&E) is a regulated investor-owned utility that provides natural gas and electric service to approximately 16 million people throughout a 70,000-square mile service area in California, including the City of Monterey. PG&E generates or buys electricity from hydroelectric, nuclear, renewable, natural gas, and coal facilities. In 2018, PG&E's power mix was comprised of 39 percent renewables (i.e., biomass and waste, geothermal, small hydroelectric, solar, and wind), 35 percent nuclear, 13 percent large hydroelectric, and 15 percent natural gas and other fuels (PG&E 2019).

Monterey Bay Community Power (MBCP) is a Community Choice Energy agency established to source carbon-free electricity for Monterey, San Benito, and Santa Cruz counties, as well as portions of San Luis Obispo county. MBCP began serving electricity in March 2018. MBCP's energy is procured from carbon-free sources in California and on the western grid such as solar, wind, biomass and hydroelectric power. MBCP's default service offering, MBchoice, is comprised of 34 percent renewable energy resources and 66 percent large hydroelectric. MBprime is a 100

percent renewable, generated exclusively from solar and wind (MBCP 2019). The Monterey High School (MHS) is served by MBCP.

Alternative Fuels

A variety of alternative fuels are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, AB 32 Scoping Plan). Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many alternative transportation fuels, such as biodiesel, electricity, hydrogen, and renewable diesel. California has a growing number of alternative fuel vehicles through the joint efforts of CEC, CARB, local air districts, federal government, transit agencies, utilities, and other public and private entities. As of March 2020, California contained 25,706 alternative fueling stations (AFDC 2020).

BUILDING AND TRANSPORTATION ENERGY USE

Households accounted for 55 percent of the energy used in buildings in the United States and consumed a total of 9,114 trillion Btu in 2015 (the latest year the EIA's *Residential Energy Consumption Survey* was completed) for space heating, water heating, air conditioning, refrigerators, and other uses (EIA 2018). Residential energy use consumed approximately 22 percent of total U.S. energy consumption. In aggregate, commercial buildings account for 46 percent of building energy consumption and approximately 19 percent of total U.S. energy consumption (U.S. Department of Energy 2012).

According to the U.S. Energy Information Administration, California consumed 584,996 thousand barrels of petroleum in 2017 for transportation. This represents 86 percent of the total amount of petroleum consumed in California (EIA 2020).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth's temperature. For an analysis of GHG production and the project's impacts on climate change, refer to Section 3.6, "Greenhouse Gas Emissions."

3.5.3 Impacts and Mitigation Measures

METHODOLOGY

This section includes a qualitative discussion of the potential for the proposed project to result in the inefficient, wasteful, and unnecessary consumption of energy. Evaluation of potential energy impacts is based on a review of the City of Monterey General Plan (2016); MPUSD's Energy Conservation Program; and relevant State regulations, policies, and plans.

THRESHOLDS OF SIGNIFICANCE

Per Appendix G of the California Environmental Quality Act (CEQA) Guidelines a project's impact on energy resources is considered significant if it would do any of the following:

- result in a potentially significant environmental impact because of wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; and/or
- conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operation

Energy needs for project construction would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy. Unnecessary idling would be limited, and equipment would be properly maintained. Thus, project construction would not result in wasteful, inefficient, or unnecessary consumption of energy.

During the operational phase, the project would consume energy as a result of a number of project components, including on-site lighting, vehicle use, and water conveyance. Largely, these energy-consuming activities are occurring elsewhere and, therefore, would not represent a substantial increase in energy consumption. Additionally, the project would adhere to the California Energy Code and CALGreen and incorporate water conservation and energy efficient design elements. Thus, the proposed project would be consistent with contemporary energy use/conservation requirements and would not result in the wasteful, inefficient, or unnecessary consumption of energy. Energy use impacts would be **less than significant**.

Construction

Energy in the form of gasoline and diesel fuel would be consumed during project construction to operate construction equipment, transport construction materials and excavated fill, and for worker commute. This one-time energy expenditure required to construct the project would be nonrecoverable. The energy needs for project construction would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy. Standard best management practices would discourage unnecessary idling in accordance with the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (California Code of Regulations Title 13, Section 2485) and the operation of poorly maintained equipment during construction. Thus, project construction would not result in wasteful, inefficient, or unnecessary consumption of energy.

Operation

During the operational phase, the project would consume gasoline and diesel fuel to operate landscaping and maintenance equipment, transport waste, and from event, activity, and practice attendee vehicle trips. The project would result in direct energy consumption for onsite electricity/lighting and heating/cooling systems; and indirect energy consumed during generation of electricity at power plants for water delivery and treatment.

Landscaping and maintenance activities are already occurring at the MHS and would not be expected to change substantially with implementation of the proposed project. No new staff would be required to operate or maintain the proposed improvements. Thus, an increase in energy consumption because of ongoing landscaping and maintenance activities or additional worker commute trips would not occur. Furthermore, the proposed project would comply with the City's Municipal Code Article 20A, Landscaping Regulations, to install water efficient landscaping, and the lower field would have synthetic turf. Use of the lower field may result in incrementally greater use of water and wastewater and associated energy as MHS is able to host more practices. As previously stated, MHS uses carbon-free electricity through MBCP. Furthermore, the additional water use and wastewater generation and associated energy consumption would not be a net increase in the area because students and staff using these resources are generally from the local area.

The athletic field improvements would enable MHS to host nighttime football games and other activities at the Dan Albert Stadium rather than at the nearby Monterey Peninsula College. The use of the MHS facilities for public nighttime events is unlikely to generate additional events in the area; instead, already-existing events would have more facilities to choose from for venues. Furthermore, MHS has established an Energy Conservation Program and is served by MBCP, which offers carbon-free energy and renewable energy. The proposed project would comply with the California Energy Code and would include energy efficient light-emitting diode (LED) lighting: the field lights, egress lights, and bleacher lights at Dan Albert Stadium would use LEDs.

With installation of lighting at Dan Albert Stadium practices that currently must end before sundown would also be allowed to extend into the evening hours, and practices and games and that are held elsewhere such as softball would occur on the lower field. The proposed improvements would not increase the number of football game attendees, nor would they increase the overall number of MHS football games. Thus, project operation would not change current energy usage; rather, it would shift the location of these uses from Monterey Peninsula College to MHS. These locations are approximately 1.7 miles apart. It is reasonable to assume that, while driving distances for individual event attendees may change, given the proximity of MHS and the Monterey Peninsula College, there would not be a substantial change in overall VMT and associated fuel consumption. VMT and associated fuel consumption may decrease as a result of students not having to travel to a different location after school to attend football games, practices, and games currently held elsewhere. The project's direct and indirect energy consumption would offset similar levels of energy consumption (e.g., electricity for lighting and scoreboard, indirect electricity for water usage in restrooms) that are currently associated with nighttime football games at the Monterey Peninsula College. Practices and other high school activities would be able to extend into the evening hours because of nighttime lighting, which would increase energy consumption at the high school and may result in incrementally greater use of water and wastewater. As previously stated, MHS uses carbon-free electricity through MBCP. Furthermore, the additional water use and wastewater generation and associated energy consumption would not be a net increase in the area because students and staff using these resources are generally from the local area. For example, if water was not consumed at MHS, it would likely be consumed elsewhere in the area instead.

Summary

According to Appendix F of the CEQA Guidelines, the means to achieve the goal of conserving energy includes decreasing overall per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. The proposed project would not result in a substantial increase in energy consumption over existing conditions. Additionally, it would be served by MBCP, adhere to the California Energy Code and CALGreen, and incorporate water conservation and energy efficient design elements. Thus, operation of the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy, so impacts would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.5-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

Consistent with the goals of the EAP and the City's General Plan, the proposed project would incorporate energy efficiency and green building design measures, install water efficient landscaping, utilize MBCP, and adhere to MPUSD's Energy Conservation Program. Impacts would be **less than significant**.

State of local plans for renewable energy or energy efficiency include the EAP and the City's General Plan. These plans focus on green building, water conservation, energy efficiency, renewable energy, and achieving GHG reduction targets (CEC and CPUC 2008, City of Monterey 2016).

As discussed above in Impact 3.5-1, the proposed project would not constitute the wasteful, inefficient, or unnecessary consumption of energy. Consistent with the goals of the EAP and the City's General Plan, the proposed project would use LED lighting to light the Dan Albert Stadium field. LED lights are an energy efficient source of lighting. In adherence to the City's Municipal Code Article 20A, Landscaping Regulations, the proposed project would install water efficient landscaping, though proposed landscaping would be minimal. The Lower Field would use synthetic turf. The project would be served by MBCP, which would support the EAP's strategies related to renewable energy and achieving climate targets. Furthermore, MPUSD has established an Energy Conservation Program, which would further improve the proposed project's energy efficiency and water conservation. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be **less than significant**.

3.6 GEOLOGY, SOILS, AND PALEONTOLOGY

This section analyzes and evaluates the potential impacts of the proposed project on geology, soils, and paleontological resources. Information used in this section includes California Department of Conservation geologic data, U.S. Geological Survey Maps, and other technical reports.

3.6.1 Regulatory Setting

FEDERAL

National Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities.

National Pollutant Discharge Elimination System Permit

In California, the State Water Resources Control Board administers the Clean Water Act (33 U.S. Code Section 1301 et seq.) and its associated regulations promulgated by the U.S. Environmental Protection Agency (40 CFR Section 122 et seq.) requiring the permitting of stormwater-generated pollution under the National Pollutant Discharge Elimination System (NPDES). The State Water Resources Control Board's jurisdiction is administered through nine regional water quality control boards. Under the federal Clean Water Act and the California Porter-Cologne Water Quality Control Act, an operator must obtain coverage under the General Construction Permit for any construction or demolition activity (e.g., clearing, grading, excavation) that results in a land disturbance of 1 acre or more. The General Construction Permit requires the implementation of best management practices (BMPs) to reduce sedimentation into surface waters and to control erosion. One element of compliance with the NPDES permit is preparation of a storm water pollution prevention plan (SWPPP) that addresses control of water pollution, including sediment, in runoff during construction (see Section 3.9, "Hydrology and Water Quality," for more information about the NPDES permit and SWPPPs).

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Public Resources Code [PRC] Section 2621–2630) intends to reduce the risk to life and property from surface fault rupture during earthquakes by regulating construction in active fault corridors, and by prohibiting the location of most types of structures intended for human occupancy across the traces of active faults. The act also requires site-specific studies by licensed professionals for some types of proposed construction within delineated earthquake fault zones. The project site is not located in an Alquist-Priolo Earthquake Fault Zone (City of Monterey 2004)

Seismic Hazards Mapping Act

The intention of the Seismic Hazards Mapping Act of 1990 (PRC Section 2690–2699.6) is to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The act's provisions are similar in concept to those of the Alquist-Priolo Act: The State is charged with

identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development.

California Building Code

The California Building Code (CBC) (California Code of Regulations, Title 24) is based on the International Building Code. The CBC has been modified from the International Building Code for California conditions, with more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, while Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBC regulates grading activities, including drainage and erosion control. The CBC contains a provision that provides for a preliminary soil report to be prepared to identify "the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects." (CBC Chapter 18 Section 1803.1.1.1). Chapter 9 of the Monterey City Code adopts the CBC by reference.

California Code of Regulations (Title 5, Sections 14001 through 14012)

California Code of Regulations (CCR) Title 5 outlines the powers and duties of the California Department of Education regarding school sites and the construction of school buildings. Districts seeking state funding must comply with the student safety and educational appropriateness standards outlined in CCR Title 5. Further, Section 14001 requires school facilities to be designed to meet federal, state, and local statutory requirements for structure, fire, and public safety.

California Division of the State Architect

The California Division of the State Architect (DSA) reviews seismic, fire and life safety, and accessibility of projects, regardless of funding status. Prior to design approval, the DSA reviews site plans to ensure consistency with the Uniform Building Code applicable to structure design and construction in order to minimize the potentially damaging effect of severe ground shaking originating from earthquakes in the region. Geotechnical investigations are also subject to DSA review and must be submitted to California Geological Survey (CGS) prior to project approval (DSA 2016).

LOCAL

City of Monterey General Plan

The City of Monterey General Plan contains the following goals and policies, organized by element, that pertain to geological resources and are relevant to this analysis:

Safety Element

GOAL a: Evaluate seismic safety when reviewing development applications and land uses.

- **Policy a.1:** Potentially active faults should be treated the same as active faults until detailed geotechnical data is submitted demonstrating to the City's satisfaction that a fault is not active.
- **Policy a.2:** Engineering and geologic investigations should be undertaken for proposed projects within high and moderate seismic hazard zones before approval is given by the City. The entire City is currently within seismic hazard zone IV and these studies are required for almost all new construction except very minor additions.

GOAL b: Minimize landslide hazards by locating development away from steep slopes and by requiring excellent grading practices.

- **Policy b.4:** Require developers to submit slope stabilization plans along with any required grading plans. These slope stabilization plans shall include a complete description of the existing vegetation, the vegetation to be removed and the method of its disposal, the vegetation to be planted, and slope stabilization measures.
- **Policy b.6:** Provide drainage and soil protection for all exposed soil and partially completed roads between October 15 and April 15.

3.6.2 Environmental Setting

GEOLOGIC SETTING

The project site is generally flat or nearly flat with slightly sloped edges, because much of the project site has been graded for sports field use as part of the Dan Albert Stadium. Based on a review of historic topographic maps, the campus was constructed on a broad, east sloping ridge. An ephemeral creek channel traversed along the eastern edge of the project site where the Dan Albert Stadium is currently located. The project site is located on Pleistocene coastal terrace and Miocene Monterey Formation deposits underlain by Mesozoic-age granodiorite porphyritic basement rocks, a distinctive granitic unit known to occur within the Monterey area. Test borings indicate the presence of loose sandy soils in areas located along the axis of the former creek channel (Moore Twining Associates 2019).

GEOLOGIC HAZARDS

Faulting and Seismicity

Active faults within the City of Monterey include the Palo Colorado-San Gregorio fault zone and the Monterey Bay-Tularcitos fault zone. In addition, the San Andreas Fault, traverses eastern Monterey County approximately 30 miles east of the project site (CGS 2010). However, the project site is considered subject to relatively moderate seismicity and moderate ground shaking with peak ground acceleration ranging from 40 to 20 percent (CGS 2016a; DOC 2019). The project site is not located within an Alquist-Priolo Earthquake Fault Zone or within an established State of California Earthquake Fault Zone for surface fault rupture hazards (City of Monterey 2004; ArcGIS 2018).

Liquefaction

Soil liquefaction is a state of soil particles suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source); relatively clean, loose granular soils (primarily poorly graded sands and silty sands); and saturated soil conditions (shallow groundwater). The project site is located in an area with generally low susceptibility to liquefaction (CGS 2016b). However, test borings encountered loose sandy soils on the eastern boundary of the Dan Albert Stadium, along the axis of the former creek channel, where project improvements are proposed (e.g., visitor bleachers, retaining wall, walkway, dugout). Site-specific analysis determined that that loose sandy soils between depths of approximately 23 and 40 feet below ground surface would be potentially susceptible to liquefaction during a seismic event (Moore Twining Associates 2019).

Lateral Spreading

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. The risk of lateral spreading on the project site is considered low due to the clayey nature of the soils underlain the site and confinement of the loose sandy soils near the axis of the former creek channel (Moore Twining Associates 2019).

Landslides

There are no known landslide occurrences on the project site, nor is the project located in the path of any known or potential landslides (CGS 2016c).

Tsunamis and Seiches

The site is not located within the Monterey Coastal Boundary or near other large bodies of water (City of Monterey 2013). Therefore, tsunamis (seismic sea waves) or seiches (large waves in an enclosed or partially enclosed body of water) would not reach the project site (CGS 2016d; CGS 2009).

Expansive Soils

Expansive soils (soils with high shrink-swell potential) contain expansive clay minerals that can absorb significant amounts of water into their crystalline structure. The presence of these clay minerals makes the soil prone to large changes in volume in response to changes in water content. The quantity and type of expansive clay minerals affect the potential for the soil to expand or contract. When an expansive soil becomes wet, water is absorbed, and it increases in volume. Then, as the soil dries, it contracts and decreases in volume. This often-repeated change in volume can produce enough force and stress on buildings and other structures to damage foundations and walls. The near surface soils on the project site have a medium expansion potential (Moore Twining Associates 2019).

PALEONTOLOGICAL RESOURCES

Paleontological resources include fossils – the remains or traces of once-living organisms preserved in sediments or sedimentary rocks – and the geologic context in which they occur. By convention, paleontological resources do not include human remains, artifacts (objects created by humans), or other evidence of past human activities which are the subjects of the field of archaeology.

Vertebrate and invertebrate fossils are found in geologic strata conducive to their preservation, typically sedimentary formations. The Pleistocene coastal terrace deposits under the project site date to the Pleistocene age, the time period that spanned from 1.8 million to about 10,000 years ago, which have a greater potential to contain fossils. Pleistocene costal terrace deposits, similar to those under the project site, have yielded vertebrate fossils in Monterey County (City of Monterey 2018: 16 and 17). Fill covers the project area, and the geologic map of the area shows Pleistocene marine deposits are present in the vicinity of the project area in addition to Cretaceous granitic rocks, indicating they are shallow (covered by fill) and/or surface deposits in the project area (CGS 2002). Miocene Monterey Formation deposits date from between 17 million to 5 million years ago and are known to yield vertebrate and invertebrate fossils (City of Monterey 2018: 15). Test boring results for the project geotechnical report encountered siltstones and claystones typical of Monterey Formation materials, which extended to as much as 40 feet below the project site. Fill soils ranged from 2 to 15 feet on the site. (Moore Twining Associates 2019).

3.6.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The impact analysis for geology, soils, and paleontological resources is based on information obtained from review of technical reports and documents pertaining to the project area including CGS technical maps and guides, the City of Monterey General Plan, General Plan EIR, and background reports prepared for nearby projects. The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to geological resources.

For a project located in area susceptible to existing geologic hazards (e.g., fault zone, expansive soil), in California Building Industry Association v. Bay Area Air Quality Management District, the California Supreme Court held that CEQA generally does not require an evaluation of impacts of the environment on the users or occupants of a project unless a project would risk exacerbating an existing environmental hazard. Accordingly, the impact analysis is focused on whether the proposed project would exacerbate existing conditions related to geologic hazards.

THRESHOLDS OF SIGNIFICANCE

Based on State CEQA Guidelines Appendix G, the project would result in a significant impact on geology, soils, and paleontological resources if it would:

- Directly or indirectly expose people or structures to potential substantial adverse impacts, including the risk of loss, injury, or death involving

  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)
  - Strong seismic shaking
  - Seismic-related ground failure, including liquefaction
  - Landslides
- Result in substantial soil erosion or the loss of topsoil
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse
- Be located on expansive soil, creating substantial risks to property
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

ISSUES NOT DISCUSSED FURTHER

Surface Fault Rupture

The project site is not located within an Alquist-Priolo Earthquake Fault Zone. Active faults near the project site include the Palo Colorado-San Gregorio fault zone and the Monterey Bay-Tularcitos fault zone. However, the project site is considered subject to relatively moderate seismicity. Therefore, the project would not exacerbate surface fault rupture, and this issue is not evaluated further in the EIR.

Landslides

The project site is not located in the path of any known or potential landslides and there are no known landslide occurrences on the site. The site is relatively flat and not an area at risk for landslides. Therefore, the project site would not alter or exacerbate landslide risks, and this issue is not evaluated further in the EIR.

Septic Tanks

The project does not include construction of septic tanks or wastewater treatment systems; therefore, this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: Risk Exposing People or Buildings to Seismic Ground Shaking through Exacerbation of Existing Seismic Conditions

The project site may be subject to moderate ground shaking due to its proximity to active faults in the area. However, the project would not involve activities that would exacerbate seismicity. There would be **no impact**.

The project site is considered subject to relatively moderate seismicity and moderate ground shaking due to its proximity to the Palo Colorado-San Gregorio fault zone, Monterey Bay-Tularcitos fault zone, and San Andreas fault. Generally, types of activities that exacerbate seismic conditions are relatively limited and include activities such as groundwater injection. The project would not involve activities that would exacerbate existing seismicity or levels of ground shaking. There would be **no impact**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-2: Result in the Potential for Seismic-Related Ground Failure, including Liquefaction

The project site is located in an area with low susceptibility to liquefaction; however, project improvements are proposed in area underlain by sandy soils that would be potentially susceptible to liquefaction during a seismic event. However, compliance with the design requirements resulting from the DSA approval process would avoid the potential for project improvements to exacerbate existing conditions. This impact would be **less than significant**.

Several project improvements (e.g., visitor bleachers, retaining wall, walkway, dugout) are proposed in an area with a high risk of liquefaction. Site-specific analysis determined that that loose sandy soils between depths of approximately 23 and 40 feet below ground surface would be potentially susceptible to liquefaction during a seismic event. Construction of the project in a way that would not provide for stabilization could exacerbate these conditions. As part of the project approval process, MPUSD shall submit a final geotechnical report, prepared by a Registered Civil Engineer or Geotechnical Engineer, to CGS and DSA for review and approval. Consistent with CBC requirements, the report shall include recommendations, based on the specific soil conditions, for project design, grading and construction techniques, fill material, and compaction. Compliance with the design requirements resulting from the DSA approval process would avoid the potential for project improvements to exacerbate existing condition. Therefore, the impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-3: Result in Substantial Soil Erosion or the Loss of Topsoil

Construction activities would expose soils and increase the potential for soil erosion. Mandatory compliance with the statewide NPDES General Permit for Discharge of Stormwater Associated with Construction Activity would require the project to implement best management practices to reduce erosion and loss of topsoil. Therefore, this impact would be **less than significant**.

Project construction would require earthwork activities, which could temporarily expose soils and increase the potential for soil erosion from wind or stormwater runoff. As discussed in Section 3.9, "Hydrology and Water Quality," because construction activities would disturb more than 1 acre of soil, MPUSD would need to obtain coverage under the statewide NPDES General Permit for Discharge of Stormwater Associated with Construction Activity (Construction General Permit). Coverage under the Construction General Permit requires preparation and implementation of an SWPPP. The SWPPP would be required to identify temporary BMPs to prevent the transport of earthen materials from construction sites during periods of precipitation or runoff, and temporary BMPs would be required to prevent wind erosion of earthen materials. In addition, once the synthetic turf grass is installed on the proposed multi-use field, all exposed soil materials would be covered and there would be limited potential for soil erosion to occur. Mandatory compliance with adopted regulations would require the project to minimize erosion and loss of topsoil during construction. Operations and maintenance would not require additional soil disturbance and would not result in erosion or loss of topsoil. The lower field would be covered with turf and would not leave topsoil exposed and vulnerable to erosion. The impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-4: Be Located on Expansive or Unstable Geologic Unit

The project site is not located in the path of any known or potential landslides and the risk of lateral spreading is low. However, project improvements are proposed in area underlain by sandy soils susceptible to liquefaction and medium expansion potential. Compliance with CBC regulations and DSA review would require the project to incorporate standard engineering and seismic safety design techniques to reduce the risk to life or property. This impact would be a **less than significant**.

The risk of lateral spreading and landslides on site are low and very low, respectively. The project would not involve substantial grading or installation of unstable slopes that would exacerbate landslide risk. In addition, the near surface soils on the project site have a medium expansion potential and could result in damage to proposed project improvements, if the project is constructed in a way that would not provide for stabilization. Compliance with CBC regulations and DSA review would require the project to incorporate standard engineering and seismic safety design techniques to reduce the risk to life or property. Therefore, the impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-5: Directly or Indirectly Destroy a Unique Paleontological Resource

The project site is not known to contain paleontological resources. However, geologic units underlying the area have a high paleontological sensitivity. Therefore, certain ground-disturbing activities could affect undiscovered paleontological resources. This impact would be **potentially significant** impact.

No paleontological resources or unique geologic features are known to exist on the project site. However, geologic units underlying the area have a high paleontological sensitivity. Test boring results encountered deposits potentially associated with the Monterey Formation. Therefore, ground-disturbing construction activities such as grading and excavation that extend beyond nonnative fill have potential to destroy or damage undiscovered paleontological resources. Grading activities at the lower field and Dan Albert Stadium would extend to no more than about 2 feet below grade. These grading activities could potentially encounter previously undiscovered resources, resulting in the permanent loss of paleontological resources. The potential to damage resources during construction would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.6-5a: Train Construction Personnel on Protocol to Follow if Fossils are Encountered

Prior to commencement of construction activities, all project personnel conducting ground-disturbing activities shall receive training regarding the potential for exposing subsurface paleontological resources (a fossilized bone or other preserved plant or animal remains), appropriate work practices for implementing mitigation measures and complying with applicable laws and regulations, and how to recognize possible buried resources. The training shall include a presentation of procedures to follow upon discovery or suspected discovery of paleontological resources, their treatment, and actions that may be taken if there is violation of applicable laws.

Mitigation Measure 3.6-5b: Follow Unanticipated Paleontological Resource Discovery Protocol

In the event that a previously unidentified paleontological resource is discovered during construction, all ground-disturbing activity within 100 feet of the resource shall be halted and a qualified paleontological resource specialist shall be retained to assess the significance of the find. An exclusion area shall be established with signage and protective barriers. Entry into the area shall be limited to authorized personnel and a qualified paleontological resource specialist, and the contractor shall immediately notify MPUSD. Preservation in place (avoidance) is the preferred method of mitigation for impacts to unique paleontological resources. No additional mitigation is necessary if the resource can be completely avoided, but the qualified paleontological resource specialist shall document the resource in accordance

with professional standards such as the 2010 Society of Vertebrate Paleontology *Standard of Procedures for the Assessment of Adverse Impacts to Paleontological Resources*. A significant paleontological resource under the 2010 Society of Vertebrate Paleontology *Standard of Procedures for the Assessment of Adverse Impacts to Paleontological Resources* definition:

> Significant paleontological resources are fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i. e., older than about 5,000 radiocarbon years).

Work can resume if there is no potential for the resource to be a unique paleontological resource. If there is a potential for the resource to be a significant paleontological resource and cannot be avoided, the qualified paleontological resource specialist shall determine appropriate mitigation measures including ensuring that fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards. Methods of recovery, testing, and evaluation shall adhere to current professional standards such as the 2010 Society of Vertebrate Paleontology *Standard of Procedures for the Assessment of Adverse Impacts to Paleontological Resources.* Work may commence after data recovery.

Significance after Mitigation

Implementation of Mitigation Measures 3.6-5a would ensure that workers are aware of their responsibility and procedures to follow should they encounter subsurface cultural resources. Mitigation measure 3.6-5b would ensure work is halted until all appropriate professionally accepted procedures are followed for discovery of paleontological resources. Therefore, Mitigation Measures 3.6-5a and 3.6-5b would reduce impacts from ground-disturbing construction activities such as grading and excavation. Impacts would be **less than significant with mitigation.**

3.7 GREENHOUSE GAS EMISSIONS

This section presents a summary of regulations applicable to greenhouse gas (GHG) emissions; a summary of climate change science and GHG sources in California; and quantification of project-generated GHGs and discussion about their contribution to global climate change.

3.7.1 Regulatory Setting

FEDERAL

Regulations for Greenhouse Gas Emissions from Passenger Cars and Trucks and Corporate Average Fuel Economy Standards

In October 2012, EPA and the National Highway Traffic Safety Administration, issued final rules to further reduce GHG emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 Federal Register [FR] 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025 (77 FR 62630). However, on April 2, 2018, the EPA administrator announced a final determination that the current standards are not appropriate and should be revised. On August 2, 2018, the U.S. Department of Transportation and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule, which would amend existing CAFE and tailpipe CO_2 emissions standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026. The proposal would retain the model year 2020 standards for both programs through model year 2026 (NHTSA 2018).

STATE

Plans, policies, regulations, and laws established by the state agencies are generally presented in the order they were established.

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order (EO) S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. EO B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015:3).

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by the California Air Resources Board (CARB), outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017:1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). The 2017 Scoping Plan includes goals to reduce fossil fuel use, increase energy efficiency, promote all feasible policies to reduce VMT, electrify the transportation sector, enhance carbon sequestration in natural and working lands, maximize waste diversion, and conserve water (CARB 2017).

The state has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Transportation-Related Standards and Regulations

The state has established several programs and regulations that result in reduced GHG emissions from transportation-related sources. As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel–powered on-road vehicles. CARB adopted the Low Carbon Fuel Standard in 2007 to reduce the carbon intensity of fuels used by on-road motor vehicles and by off-road vehicles, including construction equipment (Wade, pers. comm., 2017). EO B-48-18, signed into law in January 2018, requires all state entities to work with the private sector to have at least 5 million zero-emission vehicles on the road by 2030, as well as 200 hydrogen fueling stations and 250,000 electric vehicle–charging stations installed by 2025.

In addition to regulations that address tailpipe emissions and transportation fuels, the state legislature has passed regulations to address the amount of driving by on-road vehicles. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations to adopt plans showing reductions in GHG emissions from passenger cars and light trucks in their respective regions for 2020 and 2035 (CARB 2018a:1). In accordance with SB 375, the Association of Monterey Bay Area Governments has prepared a Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) that integrates land use and transportation planning at a regional level to achieve GHG emission reduction targets from passenger vehicles. The most recent MTP/SCS is Moving Forward Monterey Bay 2040, which was adopted in June 2018. CARB set a target for the Monterey Bay Area of 5 percent reduction from 2005 per capita GHG emissions for the year 2030. The MTP/SCS demonstrates the region's ability to exceed the GHG emission reduction target set forth by CARB through transportation investments, strategic land use development, and performance measures (AMBAG 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code (2016) is scheduled to be replaced by the 2019 standards on January 1, 2020. The 2019 California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. The CEC estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficacy lighting (CEC 2018).

LOCAL

City of Monterey

Multiple goals and policies in the City of Monterey General Plan support green building, improved transportation networks, water conservation, and waste reduction. These goals and policies also result in reduced GHG emissions from these sectors (City of Monterey 2016a). However, there are no goals or policies in the City's General Plan that directly address GHG emissions.

The City adopted a Climate Action Plan (CAP) in 2016, which establishes GHG emissions reduction targets of 15 percent below 2005 levels by 2020 and 25 percent below 2005 levels by 2030. The City is on track to meet and exceed these reduction targets because of current and ongoing retrofit projects, installation of electric vehicle charging stations, adoption of a green building ordinance, and vehicle miles traveled (VMT) reduction measures. No additional GHG reduction measures are proposed in the CAP (City of Monterey 2016b).

Monterey Bay Community Power

Monterey Bay Community Power (MBCP) is a Community Choice Energy agency established to source carbon-free electricity for Monterey, San Benito, and Santa Cruz counties, as well as portions of San Luis Obispo county. MBCP began serving electricity in March 2018. MBCP's energy is procured from carbon-free sources in California and on the western grid such as solar, wind, biomass and hydroelectric power. MBCP's default service offering, MBchoice, is comprised of 34 percent renewable energy resources and 66 percent large hydroelectric. MBprime is a 100 percent renewable, generated exclusively from solar and wind (MBCP 2019). The Monterey High School (MHS) is served by MBCP.

Monterey Peninsula Unified School District

The Monterey Peninsula Unified School District (MPUSD) established an Energy Conservation Program to reduce energy and water use and improve efficiency. Since 2012, MPUSD has reduced energy use by 36.9 percent through a combination of education, district-wide policies, retrofits, and grants. The MPUSD Facility Department has installed water-saving fixtures; established guidelines and energy saving protocols for staff; managed irrigation with Hydro-Point WeatherTrak smart controllers; and provided grants for storm water collection projects, school bus replacement, electric vehicles, and low-impact development (MPUSD n.d.).

3.7.2 Environmental Setting

THE PHYSICAL SCIENTIFIC BASIS OF GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth.

Prominent GHGs contributing to the greenhouse effect are CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014:5).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remain stored in the atmosphere (IPCC 2013:467).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of the California Environmental Quality Act (CEQA), GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

As discussed previously, GHG emissions are attributable in large part to human activities. Emissions of CO_2 are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Nitrous oxide is also largely attributable to agricultural practices and soil management. The total statewide GHG inventory for California in 2017 was 424.1 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) (CARB 2019). This is less than the 2020 target of 431 $MMTCO_2e$ (CARB 2018b:1). As shown in Table 3.7-1, transportation, industry, and electricity generation are the largest GHG emission sectors.

Table 3.7-1 Statewide GHG Emissions by Economic Sector

Sector	Percent
Transportation	41
Industrial	24
Electricity generation (in state)	9
Electricity generation (imports)	6
Agriculture	8
Residential	7
Commercial	5

Source: CARB 2019

The 2012 GHG inventory for the City of Monterey is provided in the City's CAP (2016b) and summarized in Table 3.7-2. Transportation and commercial energy use are the largest GHG emissions sectors.

Table 3.7-2 City of Monterey Greenhouse Gas Emissions Inventory for 2012

Emissions Sector	2012 GHG Emissions (MT CO_2e)
Commercial Energy	74,218
Residential Energy	41,853
Solid Waste	10,995
Transportation and Mobile Sources	170,676
Water and Wastewater	200
Total	**297,942**

Notes: Totals may not equal the sum of the numbers because of independent rounding.

MT CO_2e = metric tons of carbon dioxide equivalent.

Source: City of Monterey 2016b

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the Intergovernmental Panel on Climate Change, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 3.7 to 4.8 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014:10). According to CEC, temperatures in California will warm by approximately 2.7°F above 2000 averages by 2050 and by 4.1°F to 8.6°F by 2100, depending on emission levels (CEC 2012:2).

Other environmental resources could be indirectly affected by the accumulation of GHG emissions and the resulting rise in global average temperature. In recent years, California has been marked by extreme weather and its effects. According to CNRA's *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide

precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2018:55). In contrast, the northern Sierra Nevada experienced its wettest year on record during the 2016-2017 water year (CNRA 2018:64). The changes in precipitation exacerbate wildfires throughout California, increasing their frequency, size, and devastation. As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018:190–192). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, the sea level along California's coastline could rise up to 10 feet by 2100, which is approximately 30–40 times faster than the sea-level rise experienced over the last century (CNRA 2017:102). Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure and crop production (CNRA 2018:64, 116–117, 127).

Cal-Adapt is a climate change scenario planning tool developed by CEC that downscales global climate model data to local and regional resolution under two emissions scenarios. The Representative Concentration Pathway (RCP) 8.5 scenario represents a business-as-usual future emissions scenario, and the RCP 4.5 scenario represents a future with reduced GHG emissions. According to Cal-Adapt, annual average temperatures in the project area are projected to rise by 4°F to 6.6°F by 2099, with the low and high ends of the range reflecting the lower and higher emissions increase scenarios (CEC 2020).

3.7.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The project is evaluated for its consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions, including the 2017 Scoping Plan and the City's CAP. GHG emissions associated with the project would be generated during project construction and operation. Short-term construction-related GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. Modeling was based on project-specific information (e.g., building size, equipment, construction schedule, area to be graded, area to be paved) where available; assumptions based on typical construction activities; and default values in CalEEMod that are based on the project location. Construction of the project was assumed to begin in 2020 and end in 2021, when the project would become operational. Detailed model assumptions and inputs for these calculations are presented in Appendix E.

Project operational-related GHG emissions were qualitatively evaluated based on the change in emissions from current baseline activities on the project site. Operation-related emissions of GHGs were evaluated for the following sources: area-wide sources (e.g., landscape maintenance equipment), energy use (i.e., electricity and natural gas consumption), water use, solid waste generated, and mobile sources.

THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently a cumulative issue because the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the project's impact on climate change is addressed only as a cumulative impact.

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Under Appendix G of the State CEQA Guidelines, implementing a project would result in a cumulatively considerable contribution to climate change if it would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

The proposed project is located within the boundaries of the Monterey Bay Air Resources District (MBARD). MBARD adopted the *Guidelines for Implementing the California Environmental Quality Act* (2016), which sets forth MBARD's procedures for implementation of CEQA as a lead or responsible agency and establishes a GHG emission threshold of 10,000 metric tons of CO_2e per year (MT CO_2e/year) for stationary source projects. Stationary source projects include equipment, processes and operations that require an Air District permit to operate and are typically larger industrial sources such as refineries, factories, and power plants (MBARD 2016). This threshold would not apply to or be appropriate for the proposed project, as it is not considered a stationary source and does not require an Air District permit to operate. Additionally, the proposed project involves construction consistent with an existing land use and would not result in the same intensity of emissions as a new stationary source that emits GHGs. To date, MBARD has not adopted GHG emissions thresholds for land use projects, such as the proposed project, nor has it prepared a qualified GHG reduction plan for use/reference by local agencies located within the air district. State CEQA Guidelines Section 15064.4 states that lead agencies may rely on plans prepared pursuant to Section 15183.5(b), "Plans for the Reduction of Greenhouse Gases," in evaluating a project's greenhouse gas emissions. Section 15183.5(b) outlines six elements that should be included in a plan to reduce GHG emissions. Although the City of Monterey adopted a CAP, the CAP does not meet the requirements of Section 15183.5(b) and thus cannot be relied upon in this project-level analysis to determine significance of GHG emissions.

Because MBARD has not adopted thresholds, MBARD encourages lead agencies to consider a variety of metrics for evaluating GHG emissions as they best apply to the specific project (Frisbey, pers. comm., 2020). Therefore, this analysis references using significance thresholds and guidance from a neighboring air district, the Bay Area Air Quality Management District (BAAQMD). BAAQMD recommends that lead agencies quantify and disclose construction-related GHG emissions and make a significance determination of these emissions in relation to meeting AB 32 GHG reduction goals (BAAQMD 2017). BAAQMD has developed an operational GHG emissions threshold of 1,100 MT CO_2e/year for development projects. With respect to construction activities, BAAQMD has not developed significance thresholds for GHG emissions emitted during project construction. However, BAAQMD recommends that lead agencies quantify and disclose construction-related GHG emissions and make a significance determination of these emissions in relation to meeting AB 32 GHG reduction goals (BAAQMD 2017). Thus, the 1,100 MT CO_2e/year threshold is used to evaluate both construction and operational emissions.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment

Construction of the athletic field improvements would generate GHG emissions from the use of heavy-duty off-road construction equipment, but the emissions would be below the significance threshold. During the operational phase, the proposed project would result in area-source GHG emissions from maintenance activities, energy-source emissions; mobile-source emissions; waste-source emissions; and water-source emissions. Many of these activities already occur, and additional electricity use at MHS would use MBCP provided electricity that is not carbon based. Thus, the proposed project would not exceed BAAQMD's thresholds during construction or operation. Impacts would be **less than significant**.

GHG emissions would be generated during construction and operation of the proposed project. These phases are evaluated separately below.

Construction

Construction of the athletic field improvements would include several activities that would generate GHG emissions. These activities include site preparation; grading; installation of fencing, visitor bleachers, press box, and stadium lights, trenching, paving and concrete work, and installation of the modular building. Use of heavy-duty off-road construction equipment, haul trucks associated with materials transport, and vehicle use during worker commute would generate GHGs. Construction GHG emissions were calculated using CalEEMod Version 2016.3.2, as recommended by MBARD. Refer to Appendix E for detailed modeling assumptions, inputs, and outputs. Construction

activities would generate 283.5 MT CO_2e over the 10-month construction period, which is well below BAAQMD's threshold of 1,100 MT CO_2e/year.

Operation

During the operational phase, the proposed project would result in area-source GHG emissions from ongoing landscaping and maintenance activities; energy-source emissions from the consumption of natural gas; mobile-source emissions associated with vehicle trips from event attendees (i.e., project-generated VMT); waste-source emissions from the transport and disposal of solid waste; and water-source emissions from water use and the conveyance and treatment of wastewater. Electricity use at MHS would not generate GHG emissions because the source of electricity through MBCP is not fossil-fuel based.

Landscaping and maintenance activities are already occurring at the MHS and would not be expected to change substantially with implementation of the proposed project because the lower field would be synthetic turf, and no substantial landscaping is proposed. No new staff would be required to operate or maintain the proposed improvements. Thus, an increase in GHG emissions due to maintenance would not occur.

The athletic field improvements would enable MHS to host existing night-time football games on the MHS campus rather than at the nearby Monterey Peninsula College. Practices that currently must end at sundown would also be allowed to extend into the evening hours, and practices and games and that are held elsewhere, such as softball, would occur on the lower field. The proposed improvements would not increase the number of football game attendees, because games at the school have generally not reached capacity, and addition of visitor seating is not expected to attract more attendees than existing games. Thus, the project would merely shift an existing use to a different location. GHG emissions generated by the proposed project due to mobile-sources, water usage, wastewater treatment needs, and waste generation would offset similar levels of GHG emissions generated at the Monterey Peninsula College. These locations are approximately one mile apart. It is reasonable to assume that while driving distances for individual event attendees may change, given the proximity of MHS and the Monterey Peninsula College, there would not be a substantial change in overall VMT and associated greenhouse emissions.

Emissions may decrease as a result of students not having to travel to a different location after school to attend football games, practices, and games currently held elsewhere. Additionally, MHS has established an Energy Conservation Program and is served by MBCP, which offers carbon-free electricity. Pacific Gas and Electric (PG&E) is Monterey Peninsula College's utility provider. PG&E's power mix contains GHG-emitting sources such as natural gas in addition to renewable sources. As a result, GHG emissions associated with evening football games may decrease. Practices and other high school activities would be able to extend into the evening hours because of nighttime lighting, which would increase electricity consumption at the high school and may result in incrementally greater use of water and wastewater. As previously stated, MHS uses carbon-free electricity through MBCP. Furthermore, the additional water use and wastewater generation would not be a net increase in the area because students and staff using these resources are generally from the local area. For example, if water was not consumed at MHS, it would likely be consumed elsewhere in the area instead. Similarly, the use of the MHS facilities for public nighttime events is unlikely to generate additional events in the area; instead, already-existing events would have more facilities to choose from for venues. Therefore, GHG impacts from operation of the proposed project would be less than significant.

Summary

The proposed project would not exceed BAAQMD's thresholds during construction or operation. Thus, the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.7-2: Conflict with Any Applicable Plan, Policy or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs

Consistent with the 2017 Scoping Plan, the City's General Plan, and the City's CAP, the proposed project would incorporate water conservation measures and energy efficiency measures, would be served by MBCP which sources carbon-free electricity, and would adhere to MPUSD's Energy Conservation Program to reduce energy and water consumption. Impacts would be **less than significant**.

The project is evaluated for its consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions, including the 2017 Scoping Plan and the City's CAP.

The 2017 Scoping Plan lays out the framework for achieving compliance with emissions levels identified in SB 32 (i.e., statewide GHG emissions that are 40 percent below 1990 levels by 2030). Consistency with the emissions targets provided by SB 32 would also result in consistency with emissions targets provided by AB 32 of 2006, which are less stringent and are based on a 2020 milestone year. 2017 Scoping Plan goals that are relevant to the proposed project include goals to reduce fossil fuel use and increase energy efficiency. The 2017 Scoping Plan also includes an appendix that details local actions that land use development projects and municipalities can implement to support the statewide goal. For project-level CEQA analyses, the 2017 Scoping Plan recommends several measures that could be implemented if feasible to reduce GHG emissions, including the use of low-water landscaping and energy-efficient lighting.

The proposed project aligns with the 2017 Scoping Plan goals as well as the recommended measures. Installation of synthetic turf on the lower field would result in water conservation and associated GHG emissions reductions, and comply with the City's Municipal Code Article 20A, Landscaping Regulations. The proposed project would comply with the California Energy Code and would include energy efficient light-emitting diode (LED) lighting: the field lights, egress lights, and bleacher lights at Dan Albert Stadium would use LEDs. The project would be served by MBCP, which sources carbon-free electricity and would result in a decrease in energy-source GHG emissions over existing levels. Community Choice Energy agencies like MBCP are mentioned as a key recommendation in the City's CAP for meeting the City's long term GHG targets. Furthermore, MPUSD has established an Energy Conservation Program, which would further improve the proposed project's energy efficiency and water conservation. Therefore, the proposed project would be consistent with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes the risk of exposure associated with the routine use, storage, and transport of hazardous materials during construction and operation, the potential to encounter hazardous materials during construction, and the potential to interfere with emergency response plan or evacuation plan that could result from implementation of the proposed project. The potential for wildland fire and risk of exposure of schools to hazardous materials that could result from implementation of the project is also discussed. The evaluation identifies the project's potential impacts related to related to hazards and hazardous material.

3.8.1 Regulatory Setting

For purposes of this section, the term "hazardous materials" refers to hazardous substances and hazardous wastes. A "hazardous material" is defined in the Code of Federal Registrations (CFR) as "a substance or material that … is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that:

> …because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

FEDERAL

Management of Hazardous Materials

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, as well as requiring measures to prevent or mitigate injury to health or the environment if such materials are accidentally released. The U.S. Environmental Protection Agency (EPA) is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are primarily contained in CFR Titles 29, 40, and 49. Hazardous materials, as defined in the Code, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws.

- The Toxic Substances Control Act of 1976 (15 U.S. Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- The Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal ("cradle to grave").
- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act or CERCLA) (42 USC 9601 et seq.) gives EPA authority to seek out parties responsible for releases of hazardous substances and ensure their cooperation in site remediation.

- The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499; USC Title 42, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.
- The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans. The SPCC rule is part of the Oil Pollution Prevention regulation, which also includes the Facility Response Plan rule.

Transport of Hazardous Materials

The U.S. Department of Transportation regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law, 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act 49 USC 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials transport regulations are enforced by the Federal Highway Administration, the U.S. Coast Guard, the Federal Railroad Administration, and the Federal Aviation Administration.

Worker Safety

The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9 USC 651 et seq.). OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials and those required for excavation and trenching.

STATE

Management of Hazardous Materials

In California, federal and state community right-to-know laws are coordinated through the Governor's Office of Emergency Services. The federal law, SARA Title III or EPCRA, described above, encourages and supports emergency planning efforts at the state and local levels and to provide local governments and the public with information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- emergency planning,
- emergency release notification,
- reporting of hazardous chemical storage, and
- inventory of toxic chemical releases.

The corresponding state law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, qualifying businesses are required to prepare a Hazardous Materials Business Plan, which would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment. At such time as the applicant begins to use hazardous materials at levels that reach applicable state and/or federal thresholds, the plan is submitted to the administering agency.

The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency, has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the State, known as the Cortese List. Individual regional water quality control boards (RWQCBs) are the lead agencies responsible for identifying,

monitoring, and cleaning up leaking underground storage tanks (LUSTs). The Central Coast RWQCB has jurisdiction over the project site.

Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan

The State of California has adopted U.S. Department of Transportation regulations for the movement of hazardous materials originating within the state and passing through the state; state regulations are contained in Title 26 of the California Code of Regulations (CCR). State agencies with primary responsibility for enforcing state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the Governor's Office of Emergency Services, which coordinates the responses of other agencies in the project area.

Management of Construction Activities

Through the Porter-Cologne Water Quality Act and the National Pollution Discharge Elimination System (NPDES) program, RWQCBs have the authority to require proper management of hazardous materials during Project construction. For a detailed description of the Porter-Cologne Water Quality Act, the NPDES program, and the role of the Central Valley RWQCB, see Section 3.9, "Hydrology and Water Quality."

The State Water Board adopted the statewide NPDES General Permit in August 1999. The state requires that Projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management practices (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the Project; the BMPs must address source control and, if necessary, pollutant control.

Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are typically more stringent than federal OSHA regulations and are presented in Title 8 of the CCR. Cal/OSHA conducts onsite evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

Title 8 of the CCR also includes regulations that provide for worker safety when blasting and explosives are utilized during construction activities. These regulations identify licensing, safety, storage, and transportation requirements related to the use of explosives in construction.

California Fire Code

The California Fire Code is Part 9 of the CCR, Title 24, also referred to as the California Building Standards Code. The California Fire Code incorporates the Uniform Fire Code with necessary California amendments. It prescribes regulations consistent with nationally recognized good practices for the safeguarding to a reasonable degree of life and property from the hazards of fire, explosion, and dangerous conditions arising from the storage, handling, and use of hazardous materials and devices and from conditions hazardous to life or property in the use or occupancy of buildings or premises and provisions to assist emergency response personnel.

LOCAL

City of Monterey General Plan

The City of Monterey General Plan (General Plan), adopted January 2005 and most recently amended in March 2016 under Resolution No. 16-042, contains the following goals and policies organized by element that directly or indirectly related to hazards and hazardous materials related to the Project.

Safety Element

GOAL d: Minimize the loss of life and property from fire.

- **Policy d.1:** Achieve the greatest practical level of built-in fire protection to confine fires.
- **Policy d.2:** Achieve effective emergency access to all developments, installations, and fire protection equipment for emergency apparatus and for evacuation.
- **Policy d.3:** Maintain a cost-effective, high level of fire protection service.

GOAL h: Ensure prompt and effective services to cope with local emergencies.

GOAL h: Ensure prompt and effective services to cope with local emergencies.

Monterey Airport Land Use Compatibility Plan

The project site is in the Airport Influence Area (AIA) and is subject to the Monterey Airport Land Use Compatibility Plan (ALUCP). The ALUCP seeks to protect the public from the adverse effects of airport noise, to ensure that people and facilities are not concentrated in areas susceptible to high risk of aircraft accidents, and to ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace. The AIA is an area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by the Airport Land Use Commission. The plan is intended to protect and promote the safety and welfare of residents, businesses, and airport users near the Airport, while supporting the continued operation of Monterey Regional Airport. Prohibited land uses in the AIA include hazards to flight, outdoor stadiums and similar uses with very high intensity uses, and land use development, such as golf courses, that would attract birds. Hazards to flight include physical (e.g., tall objects), visual, and electronic forms of interference with the safety of aircraft operations (Monterey County ALUC 2019).

Monterey County Emergency Operation Plan

In an emergency disaster, the Monterey County Office of Emergency Services (OES) organizes, manages, and executes emergency actions necessary to protect lives, property, and the environment. To respond effectively to all types of emergencies, OES maintains the Monterey County Emergency Operations Plan (EOP) on behalf of the Operational Area. The EOP describes the Operational Area's emergency organization; its roles, responsibilities, and authorities; and the actions taken during an emergency. The EOP addresses both response and recovery efforts and discusses the principles, concepts, and procedures that the OES and its partners use during an emergency.

3.8.2 Environmental Setting

EXISTING HAZARDOUS MATERIALS SITES

The project site is not located on a contaminated site pursuant to Government Code Section 65962.5. However, an undocumented underground fuel storage tank was encountered during ground disturbing activities associated with construction of the Science Center project directly north of the Dan Albert Stadium. The fuel was drained, the tank cleaned and the tank was safely removed from the site. The closest designated contaminated site is Owl Cleaners, a dry-cleaning business, located at 153 Webster Street approximately 0.5 mile to the east of the Project site. The Owl Cleaners site was historically used a dry-cleaning business and at this time is considered to have an active cleanup

status. The site is listed on the National Priorities List with tetrachloroethylene within soil vapor being as the potential contaminant of concern (EnviroStor 2020).

No authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks are located within a 1,000-foot radius of MHS. The Monterey Fire Department and Recovery Center (CHOMP) are the closest sources hazardous discharges, both of which are located approximately 0.5 mile away to the northeast and east of the project site respectively. The Monterey Fire Department is listed as a LUST cleanup site with gasoline being the potential contaminant of concern. The cleanup status is marked as completed and the case was closed as of October 10, 1995. The Recovery Center (CHOMP) is listed as a LUST cleanup site with diesel being the potential contaminant of concern. The cleanup status is marked as completed and the case was closed as of December 16, 2007 (GeoTracker 2020).

Airports

The project is in the Monterey Peninsula Airport District, and the closest airport is the Monterey Regional Airport, located approximately 4 miles to the northeast of the project site. Monterey Regional Airport is a non-hub commercial service airport. Monterey Regional Airport has two parallel runways, a Federal Air Traffic Control Tower, and precision instrument approach procedures. The project is in the Airport Land Use Compatibility Plan's AIA; aircraft accident risk level is defined as low in this zone.

Schools

The proposed project is located on the MHS campus. The closest other schools to the project site are Monte Vista Elementary School and the Walter Colton Middle School, both of which are located approximately 1 mile southwest of the project site.

Wildfire Hazard Severity

The proposed project is not located in a fire hazard severity zone (FHSZ) in a California State Resources Area; however, Monterey County designates the project site and the majority of the City of Monterey as a wildland urban interface (WUI) area. WUI is an area within or adjacent to an "at-risk community" or an area that is conducive to a large-scale wildland fire disturbance event. The area adjacent to the south and southeast located approximately 2 to 4 miles from the project site is designated as very high and high FHSZ. The project site is in an urban area where susceptibility to wildfire hazards is similar to the city as a whole. Topography is relatively flat and does not contain vegetation or other factors known to exacerbate wildfire risks.

3.8.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following reports and data sources document potentially hazardous conditions at the project site and were reviewed for this analysis:

- materials prepared by the Master Architect team for the project;
- available literature, including documents published by federal, State, County, and City agencies;
- review of applicable elements from the Safety Element of the General Plan; and
- project construction and operation were evaluated against the hazardous materials information gathered from these sources to determine whether any risks to public health and safety or other conflicts would occur.

THRESHOLDS OF SIGNIFICANCE

An impact related to hazards and hazardous materials is considered significant if implementation of the project would do any of the following:

- 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/or 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 it 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, would the project result in a safety hazard or excessive noise for people residing or working in the Project area;
- implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; and/or
- expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.8-1: Result in Substantial Release of Hazardous Materials

Construction and operations of the proposed project could potentially create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The District would be required to adhere to applicable regulations and safety standards, including preparation and implementation of a SWPPP. Hazardous materials impacts would be **less than significant**.

Construction

Project-related construction activities would result in a temporary increase in the transport, use and disposal of hazardous materials and petroleum products (such as diesel fuel, lubricants, paints and solvents, and pavement). Installation of new field lighting, new visitor bleachers, a new softball and multi-use field, construction of a new weight room/team room building, and improvements of the existing home bleachers would use typical construction equipment that would require the use of diesel fuels and lubricants. Construction-related transport, use, storage, and disposal of hazardous materials would be temporary, occurring over approximately 11 months. The U.S. Department of Transportation regulates transport of hazardous materials and has stringent regulations to ensure safe transportation of hazardous materials under the federal hazardous materials transportation law, 49 USC 5101 et seq. The EPA (CFR) Titles 29, 40, and 49 provides additional requirements for the regulation, manufacturing, and disposition of industrial chemicals to reduce the potential for the release of hazardous materials during Project construction and operations. The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans. As discussed in Impact

3.9-1 of Section 3.9 Hydrology and Water Quality, accidents and improper handling of hazardous materials during construction can release hazardous materials into the environment in the form of runoff or stormwater runoff. To minimize runoff of hazardous materials, the Project would obtain coverage under the statewide NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit) (NPDES Permit, 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-006-DWQ) because construction and implementation would disturb more than one acre. Under the requirements of the NPDES the Project would prepare a SWPPP which includes BMPs avoid spills and releases of hazardous materials and wastes into the environment (see Impact 3.9.1 of Section 3.9 Hydrology and Water Quality for more details).

Project construction would occur primarily on an existing football and track stadium and a dirt area historically used as an informal practice area and currently used as an overflow parking area by the school. The project site and existing structures do not contain known substantial levels of hazardous materials, such as lead-based paint or asbestos or other hazardous materials that were prevalent in materials during the time of building construction. Project construction has the potential to uncover or disturb unknown hazardous materials and result in potential exposure to construction personnel or the public. However, compliance with federal, state, and local regulations (including the Toxic Substances Control Act, the National Emission Standard for Hazardous Air Pollutants, and the Resource Conservation and Recovery Act) would minimize exposure risks to unknown hazardous materials.

Operation

Project operations would maintain the existing land uses and maintenance activities and would not produce hazardous materials that would result in a substantial exposure to the environment or the public.

Summary

Adherence to existing regulations and compliance with safety standards would result in a **less-than-significant** impact.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.8-2: Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-quarter Mile of an Existing or Proposed School

The proposed project is located on the Monterey High School campus, and project construction and operations could result in the emissions of hazards or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing school. The District would be subject to all applicable existing regulations and compliance safety standards. Materials proposed to be used for synthetic turf meet current government standards and are safe. Impacts would be **less than significant**.

The proposed project is located on the Monterey High School campus and as a result hazardous materials and waste could be handled within one-quarter of a mile of an existing school due to the location of the project on the MHS campus. The closet schools to MHS are Monte Vista Elementary School and the Walter Colton Middle School, both of which are located approximately 1 mile southwest of the project site. Both schools are located over one-quarter mile from the project site and along roads unlikely to be used for construction traffic. Therefore, these schools are located an adequate distance away that it is highly unlikely that they would be have potential exposures to hazardous materials.

As discussed above in Impact 3.7-1, project construction would result in the handling, storage, and disposal of hazardous materials that are typically used during construction, such as diesel fuel, lubricants, paints and solvents, and pavement. Construction-related impacts would be temporary in nature, approximately 11 months, and would be subject to all applicable existing regulations and compliance with safety standards. Therefore, construction activities are not expected to endanger individuals on the Monterey High School campus due to the nature and quantity of the materials that would be used during construction and compliance with applicable laws and regulations. Additionally, as discussed for Impact 3.7-1, BMPs would be employed that include spill prevention and control. Project operations would result in routine transportation, use, storage, or disposal of hazardous materials such as fertilizer for landscaped areas or paint and chemicals for maintenance activities, which are similar to existing maintenance

activities that already occur on the MHS campus. Compliance with regulatory requirement federal, state, and local regulations (including the Toxic Substances Control Act, the National Emission Standard for Hazardous Air Pollutants, and the Resource Conservation and Recovery Act) would minimize exposure risks during maintenance activities.

Artificial turf would be installed on the lower field. It would include a synthetic turf (e.g., 2-inch FieldTurf Vertex Prime) with a carpet backing and alternative infill of cork and sand. Synthetic turf can be made of components such as polyethylene, and the carpet backing may be woven polypropylene, latex, or urethanes and treated with UV inhibitors. The concerns about artificial turf and chemical exposure, in general, have centered around the use of crumb rubber as infill (EPA 2020, OEHHA 2020). However, the proposed project would use cork and sand, and crumb rubber would not be used. The cork is a natural wood product and poses no known hazards. The sand would be rounded and dust free, which would eliminate or substantially limit risk of inhalation of sand. Maintenance of the synthetic field would use a field groomer and a sweeper, which are meant to collect debris but leave infill. No chemicals would be required for maintenance. The artificial turf itself does not pose a substantial hazard, as it tends to be made out of material like propylene, which is considered to be a non-hazardous material under OSHA standards. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.8-3: Creation of a Substantial Hazard due to Location Near Sites Compiled Pursuant to Government Code Section 65962.5

The project site is not located on a contaminated site pursuant to Government Code Section 65962.5. The project would have **no impact**.

The project site is not located on a contaminated site pursuant to Government Code Section 65962.5. The three closest known hazardous materials sites are 0.5 mile from the project, and two sites have been remediated. The project is located an adequate distance from all known contaminated sites that project construction and operation of the project would not cause a release of hazardous materials that would create a substantial hazard to the public or environment. Therefore, the project would have **no impact**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.8-4: Creation of a Substantial Safety Hazard or Excessive Noise for People Residing or Working in the Project Area due to Proximity to the Monterey Regional Airport

The Project is located within the Airport Influence Area per the Airport Land Use Compatibility Plan (ALUCP). The Project is subject to all development and design criteria of the of the Airport Land Use Compatibility Plan. Land use associated with the Project would be compatible and does not conflict with the airport land use. Impacts would be **less than significant**.

Consistent with Public Resources Code Section 21096(a), this EIR considers the ALUCP in evaluating airport-related safety hazards and noise problems. The closest airport to the project site is the Monterey Regional Airport, located approximately 4 miles away to the northeast of the project site. Per the ALUCP, the project is located in an area designated as the AIA. The AIA is defined as an area where airport-related factors may significantly affect land uses or necessitate restrictions on those uses as determined by an Airport Land Use Commission; however, the aircraft accident risk level is considered low in this zone. Prohibited uses are flight hazards and outdoor stadiums and similar uses with very high intensity uses. However, modifications of existing nonconforming land uses are allowed if the modification does not increase the magnitude of the nonconformity (Monterey County Airport Land Use Commission 2019). The maximum non-residential intensity is 300 persons per acre. Flight hazards include tall objects as well as visual and electronic forms of interference.

The new field lighting at the Dan Albert Stadium is the tallest project component and would be approximately 70 feet. The ALUCP states that objects shorter than 100 feet generally are not airspace obstructions unless they are at a ground elevation far above that of the airport. The airport elevation is approximately 257 feet above mean sea level (amsl), while the stadium site is about 100 feet amsl. The project site is lower in elevation than the airport and no structures are as tall as or taller than 100 feet, so a 70-foot light pole and fixture would not be an airspace hazard. The lower field would not be a stadium and would not exceed density restrictions in the ALUCP and therefore is an allowable use in the AIA.

The Dan Albert Stadium is an existing stadium with a seating capacity of 1,600 in addition to 100 people on the field and covers approximately 3.5 acres, although at times this capacity is exceeded for infrequent, larger events, like graduation. As a result, the stadium exceeds AIA criteria for non-residential intensity of a maximum of 300 persons per acre. Because MHS and the stadium pre-date the ALUCP, the stadium is allowable as an existing nonconforming use. Modifications of existing nonconforming land uses are allowed if the modification does not increase the magnitude of the nonconformity (Monterey County Airport Land Use Commission 2019). For nonresidential land uses, the magnitude of the nonconformity is measured by the size of the nonconforming use in terms of lot area and building floor area. The project would increase the capacity of the stadium by 500 seats through installation of the visitor bleachers. However, seating capacity has not been a constraining factor for attendance (i.e., the demand for attending games is substantially less than the seating capacity), so an increase in seating capacity is not expected to cause an increase in attendance of MHS athletic games or other events above the level of demand. The most well-attended athletic events are football games, with a maximum attendance in the last season of 502 spectators, well below the capacity of Dan Albert Stadium. Also, the proposed project would not result in new uses within the AIA. MHS football games are already held at Monterey Peninsula College, which is also within the AIA and closer to the Monterey Regional Airport than Dan Albert Stadium. Therefore, the project would move spectators further away from the airport. As a result, the project would not conflict with the ALUCP, because it would not create a safety hazard.

The project site is not located within the 2013 existing noise contours or the 2033 projected noise contours (Monterey County Airport Land Use Commission 2019) and, as such, would not be impacted by excessive noise levels associated with the MRA.

The proposed project impacts related to Monterey Regional Airport would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.8-5: Conflict with Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan

The proposed project would not physically alter existing roadways or add new roadways. A short-term increase in traffic would occur due to construction related activities but would not result in a substantial increase in traffic that would interfere with an adopted emergency response plan or emergency evacuation plan. There would be **no impact**.

Construction activities would not occur within existing roadways or rights-of-way and would not prevent emergency access to Monterey High School and the surrounding area. The project does not include new roadways or alterations of roadways. The proposed Project would maintain existing roadways and access provided via Herrmann Drive, Larkin Street, Logan Lane, and Martin Street. The types of vehicles accessing the project site during operational activities would be consistent with those currently using the roadway network to access MHS (i.e., passenger vehicles, buses, and construction vehicles for current construction activities). Therefore, the project would not result in additional traffic or additional factors that would impede implementation of the Monterey County Emergency Operations Plan or the Monterey County Multi-Jurisdictional Hazard Mitigation Plan. There would be **no impact**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.8-6: Exacerbate Wildfire or Risks due to Slope, Prevailing Winds, and Other Factors

The project is in a previously disturbed urbanized area does not contain vegetation or other factors known to exacerbate wildfire risks, such as excessive slopes. Furthermore, new structures would be built in accordance with the California Building Code (CBC) and the California Fire Code and adhere to all applicable General Plan policies and safety standards. Impacts would be **less than significant**.

Construction

Project construction could increase potential exposure to wildfire due to increased ignition risks. Project construction would include a construction crew that would utilize typical construction equipment (i.e. scraper/blade, backhoes, and rollers) powered by gasoline or diesel fuel. Use of construction equipment as represent potential sources of sparks. Sparks originating from construction activities have the potential to ignite vegetation or other materials on or adjacent to the project site. Fires sparked onsite are capable or spreading to surrounding urban development or the very high and high FHSZ located adjacent to the south and southeast of the project site. The MHS and project site are mostly developed and do not contain extensive amounts of vegetation, flammable vegetation, or other materials that have a high risk of ignition by sparks from construction activities or personnel. The project site is flat and does not contain other factors, such as excessive slopes, that are known to exacerbate wildfire risks.

Operation

Project operations could increase potential exposure to wildfire due to increased ignition risks. Malfunction of electricity/lighting and heating/cooling systems or equipment can produce sparks which have the potential to ignite project structures. To minimize any susceptibility to fire hazards the Project would adhere to the 2019 CBC Chapter 9 Fire Protection Systems; the California Fire Code Chapter 6 Building Services and Systems, Chapter 7 Fire and Smoke Protection Features, and Chapter 10 Means of Egress. The project site is located in an urban area that is not especially susceptible to fire hazards. Topography is relatively flat and does not contain extensive vegetation susceptible to fires or other factors known to exacerbate wildfire risks. Implementation of all applicable codes and safety standards these would minimize fire risks and therefore, impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.8-7: Require the Installation or Maintenance of Associated Infrastructure (such as Roads, Fuel Breaks, Emergency Water Sources, Power Lines, or Other Utilities) that May Exacerbate Fire Risk or that may Result in Temporary or Ongoing Impacts to the Environment

The Project does not include new roadways or modifications to existing roadways and would be adequately served by existing infrastructure. As discussed in Impact 3.8-7 the Project is designed to minimize fire risk. There would be **no impact**.

As noted in Impact 3.8-6, the proposed project does not include new roadways or modifications to existing roadways. The Project would connect to Monterey High School's existing power and utilities and would not require the installation of new power lines or other utilities. (see Section 3.13. Utilities and Service Systems for more details). As a result, there would not be infrastructure beyond that discussed in Impact 3.8-7 that would exacerbate fire risk. There would be **no impact**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.8-8: Expose People or Structures to Substantial Risks, Including Downslope or Downstream Flooding or Landslides, as a Result of Runoff, Post-fire Slope Instability, or Drainage Changes

The relatively flat topography of the project site would not expose people or structures to substantial risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, there would be **no impact**.

The Project site is relatively flat and located in a previously, disturbed urbanized area that is not designated as a FHSZ. In the case of a large-scale fire event the project site topography would not cause or exacerbate flooding, landslides, runoff post-fire stability or drainage changes. As explained in Impact in Impact 3.8-7 new structures would be constructed in a manner that would not exacerbate fire and post-fire hazards with the 2019 CBC Chapter 9 Fire Protection Systems; the California Fire Code Chapter 6 Building Services and Systems, and Chapter 7 Fire and Smoke Protection Features. Therefore, the project would have **no impact**.

Mitigation Measures

No mitigation is required for this impact.

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3.9 HYDROLOGY AND WATER QUALITY

This section identifies the regulatory context and policies related to hydrology and water quality, describes the existing hydrologic conditions at the project site, and evaluates potential hydrology and receiving water-quality impacts of the proposed athletic facilities improvements (project). Potential effects on the capacity of City of Monterey water-supply, sewer/wastewater, and drainage/stormwater facilities are addressed in Section 3.15, "Utilities and Service Systems."

3.9.1 Regulatory Setting

FEDERAL

Clean Water Act

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA as well as the states. Various elements of the CWA address water quality. These are discussed below.

CWA Water Quality Criteria/Standards

Pursuant to federal law, EPA has published water quality regulations under Title 40 of the Code of Federal Regulations (CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the act, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory 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 water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of state regulations below, the State Water Resources Control Board (State Water Board) and its nine regional water quality control boards (RWQCBs) have designated authority in California to identify beneficial uses and adopt applicable water quality objectives.

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with water quality objectives. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. In California, implementation of TMDLs is achieved through water quality control plans, known as Basin Plans, of the State RWQCBs. The City of Monterey contains the following impaired water bodies: the Monterey Harbor, located approximately 2.5 miles northeast of the project site, and the Monterey Harbor, located approximately 1.5 miles north of the project site. See "State Plans, Policies, Regulations, and Laws," below.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits.

"Nonpoint source" pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The

goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The RWQCBs in California are responsible for implementing the NPDES permit system (see the discussion of "State Plans, Policies, Regulations, and Laws" section below).

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from and mitigating against disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of NFIP. Floodplains are divided into flood hazard areas, which are areas designated per their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas are the areas identified as having a one percent chance of flooding in each year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain, if the development is expected to increase flood elevation by 1 foot or more.

STATE

California Porter-Cologne Act

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Board and each of the nine RWQCBs power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the Clean Water Act. The Central Coast RWQCB has jurisdiction over the project area. The State Water Board and the Central Coast RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a water quality control plan (known as a "Basin Plan") for its region. The Basin Plan for the Central Coast Region includes a comprehensive list of waterbodies within the region and detailed language about the components of applicable Water Quality Objectives (WQOs). The Basin Plan recognizes natural water quality, existing and potential beneficial uses, and water quality problems associated with human activities throughout the Central Coast Region. Through the Basin Plan, the Central Coast RWQCB executes its regulatory authority to enforce the implementation of TMDLs, and to ensure compliance with surface WQOs. The Basin Plan includes both narrative, and numerical WQOs designed to provide protection for all designated and potential beneficial uses in all its principal streams and tributaries. Applicable beneficial uses in the Basin Plan include municipal and domestic water supply, water contact recreation and non-contact recreation, irrigation, groundwater recharge, freshwater replenishment, and preservation and enhancement of wildlife, fish, and other aquatic resources (Central Coast RWQCB 2017).

The Central Coast RWQCB also administers the adoption of waste discharge requirements (WDRs), manages groundwater quality, and adopts projects within its boundaries under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit).

NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity

The State Water Board adopted the statewide NPDES General Permit in August 1999. The state requires that projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation.

Dischargers are required to eliminate or reduce non stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management plans (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014 (SGMA) became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1). Pursuant to the SGMA, any local agency that has water supply, water management or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). The Monterey Peninsula Water Management District notified DWR on September 23, 2015 that it has elected to become a GSA pursuant to Water Code Section 10723.8 and intends to undertake sustainable groundwater management in area roughly coincident with the Monterey Peninsula and the Carmel River Basin. Currently, the Monterey Peninsula Water Management District does not have a sustainable groundwater management plan. However, a groundwater sustainability plan exists for the 180/400-Foot Aquifer Subbasin, which is managed by Salinas Valley Basin Groundwater Sustainability Agency and shares the northern border with the Salinas Valley Groundwater Basin- Seaside coastal groundwater sub-basin (DWR 2019a).

LOCAL

Monterey Regional Storm Water Management Program

The Cities of Monterey, Carmel-by-the-Sea, Del Rey Oaks, Sand City, Seaside, Pacific Grove and the County of Monterey are seven local agencies that have joined forces to develop a regional stormwater program for the Monterey Peninsula and surrounding areas. The Pebble Beach Company, the Monterey Peninsula Unified School District, the Pacific Grove Unified School District and the Carmel Unified School District have joined the group as coordinating entities for specific Best Management Practices within the Stormwater Management Plan. The group was formed in 2001 to start development of the permit application for the NPDES Phase II program. The six program components that are in various phases of implementation or development are the following:

- Public Education and Outreach,
- Public Participation and Involvement,
- Illicit Discharge Detection and Elimination,
- Construction Site Runoff Control,
- Post Construction Runoff Control in New Development and Redevelopment, and
- Pollution Prevention and Good Housekeeping for Municipal Operations

City of Monterey Storm Water Ordinance

The City of Monterey Storm Water Ordinance is found in Chapter 31.5 of the City Code. Article 2- Urban Storm Water Quality Management and Discharge Control of Chapter 3.15 provides discharge prohibitions; establishes regulations and requirements for discharge; and methods for inspections, monitoring, and enforcement. In addition, Article 2 also contains requirements for BMPs activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, including construction sites and new developments or redevelopments.

3.9.2 Environmental Setting

HYDROLOGY AND DRAINAGE

Groundwater

Water that serves the project area is taken from the Carmel Valley aquifer groundwater basin and/or the Salinas Valley Groundwater Basin- Seaside Subbasin for the project. The Salinas Valley–Seaside Area Subbasin includes the coastal communities of Seaside and Marina as well as the western portion of the former Fort Ord (DWR 2004). Although the project site is served by groundwater, the project site itself is not located within a groundwater basin (DWR 2019b). The City of Monterey is supplied water by California American Water. California American Water obtains water from surface water and from wells in the Carmel Valley aquifer and the Salinas Valley Groundwater Basin- Seaside coastal groundwater sub-basin (City of Monterey 2014). The northeast boundary of the Salinas Valley Groundwater Basin-Seaside coastal groundwater sub-basin is shared with the 180/400 Foot Aquifer Subbasin, which follows a groundwater divide and the Reliz Fault. The southwest boundary is formed by a groundwater divide separating the Subbasin and the Seaside Subbasin (DWR 2016). The 180/400 Foot Aquifer Subbasin is classified by the CADWR as a critically overdrafted subbasin (DWR 2019a).

Surface Water Hydrology

The project area is part of the Central Coast Hydrologic Region of California (Central Coast region), which covers about 11,300 square miles, including all of Monterey County. There are no surface water features on the project site, which is a previously disturbed area served by an existing stormwater drainage system that connects to the City sewer infrastructure. There is a creek mapped as riverine wetland to the north of the stadium as well as a linear wetland area mapped as freshwater forested/shrub to the south of the project site.

Flood Conditions

Localized flooding occurs within the City infrequently; however, the City does not have rivers or streams discharging large volumes of water that would cause concern for major flood hazards. The project site is relatively flat and is in an area designated Zone X, or an area of minimal flood hazard. The project area is not located in a FEMA designated 100-year flood zone area (FEMA 2009).

Tsunamis are uncommon in the state of California and are not identified as a risk for the City of Monterey based on the City's local coastal program. The project site is not in a mapped tsunami inundation area (California Department of Conservation 2009).

The National Oceanic and Atmospheric Administration defines a seiche as a standing wave oscillating in a closed body of water. The city contains several small enclosed bodies of water located within 5 miles of the project site (National Oceanic and Atmospheric Administration 2018). The largest body of water located in the nearby vicinity is Lake EL Estero, located approximately 1.2 miles northeast of the project site. Seiches generally tend to occur within larger bodies of water and would are unlikely to occur within the smaller bodies of water located in City of Monterey. Topography of the project site is relatively flat and no steep, erodible slopes are located in or nearby the project site. Consequently, mudflows and landslides do not present as hazards for the project area.

WATER QUALITY

City of Monterey General Plan Conservation Element

The Conservation Element of the City of Monterey General plan recognizes "non-point source pollution" in urban stormwater runoff as the main threat to water quality in the city. Non-point source pollution includes metals, organic wastes, pesticides, and a variety of other pollutants, which are carried into the drainage system by stormwater runoff. The City has developed a Model Urban Runoff Program in conjunction with other local government agencies to address non-point source pollution.

California American Water 2018 Annual Water Quality Report

In 2018 Cal Am produced the 2018 Annual Water Quality Report, also known as the Consumer Confidence Report (CCR). The CCR noted that Monterey system's water sources are considered vulnerable to the following: airport maintenance and fueling areas, automobile gas stations, dry cleaners, high-density housing, military installations, NPDES/WDR permitted discharges, parks, storm drain discharge permits, low- and high-density septic systems, and water supply wells. Tetrachloroethylene and methyl tert-butyl ether, associated with industrial activities, have historically been detected in groundwater sources. Groundwater sources are now tested with increased frequency to monitor these contaminants. The 2018 Annual Water Quality Report confirmed that water provided by Cal Am met every primary and secondary state and federal water quality standard (Cal Am 2019).

3.9.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and studies that address water resources in the vicinity of the project. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, state, and local laws, ordinances, and regulations.

THRESHOLDS OF SIGNIFICANCE

An impact on hydrology or water quality is considered significant if implementation of the Project would do any of the following:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- 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 that would
  - result in substantial erosion or siltation on- or off-site;
  - result in flooding on-site or off-site;
  - create or contribute runoff water that would exceed the capacity of existing or planned stormwater- drainage systems or provide substantial additional sources of polluted runoff;
  - impede or redirect flood flows
- in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and/or
- conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

The project site is not located within a flood hazard, tsunami, or seiche zones, and would not risk release of pollutants due to project inundation. Therefore, these issues are not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.9-1: Substantially Degrade Water Quality During Construction

Construction of the proposed project could potentially increase runoff events and degrade surface or groundwater quality. The District would be required to adhere to applicable regulations, including preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). Impacts would be **less than significant**.

The proposed project consists of a suite of stadium improvements, several of which would require grading and the use of heavy equipment. Construction of site improvements in the approximately 2.16-acre dirt area adjacent to the stadium have the greatest potential to impact water quality. Demolition of existing softscape and hardscape, earthwork grading, and site drainage improvements within the lower field area would disturb and expose soils to wind and water erosion, potentially transporting sediment and pollutants to surface water bodies, such as the riverine area north of the stadium. Erosion and sedimentation of exposed dirt areas particularly vulnerable during storm events. Sediments that enter surface water as a result of construction-related activities are classified as a non-point source pollutants, which can be deposited in stormwater and surrounding waterways, ultimately degrading water quality and wildlife habitats.

Installation of new field lighting, new visitor bleachers, a new softball and multi-use field, construction of a new weight room/team room building, and improvements of the existing home bleachers would use typical construction equipment that would require the use of fuels and lubricants. Accidents and improper handling of these materials could release them to the environment, where they may degrade water quality. If these materials are not properly contained, they may be exposed to runoff of stormwater and released into surface water. Multiple small contamination events or large-scale singular contaminations over time can substantially impact surface water quality. As discussed in Impact 3.8-1, adherence to existing safety regulations would help reduce the potential of release of hazardous materials. Additionally, the District would need to obtain coverage under the statewide National Pollution Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit) (NPDES Permit, 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ) because the project would disturb more than one acre. Obtaining coverage under the Construction General Permit involves submitting a Notice of Intent to the SWRCB and developing a stormwater pollution prevention plan (SWPPP). The SWPPP would contain the following:

- Temporary BMPs to prevent transport of earthen materials and other construction waste material from disturbed areas and stockpiles during precipitation or runoff. BMPs could include fiber rolls, erosion control blankets, settling basis, and other erosion-control methods.
- Temporary BMPs to prevent wind erosion of earthen materials and other construction waste material. BMPs could include routine application of water to disturbed areas and covering stockpiles with fabric sheeting.
- A spill prevention and containment plan that identifies BMPs to capture and contain pollutants. BMPs could include use of drip pans beneath construction equipment, proper waste disposal, and training site workers in spill response.
- Inspection requirements for temporary BMPs.

In addition, the project activities would include applicable BMPs outlined by the California Storm Water Quality Association, nonpoint source pollution control program and Article 2 of the Chapter 31.5 of the City Stormwater Ordinance (Article 2). Article 2 prohibits discharge from construction debris and fluids, such as, but not limited to, paint, dirt or sediment, construction wastes, rinse or wash waters and provides methods for inspections, monitoring, and enforcement. In addition, Article 2 also contains required BMPs for new development, redevelopment, and construction related activities. The project is designed to incorporate BMPs to control sediment and erosion runoff events and protect water quality. In accordance with the City Stormwater Ordinance, any developments are required to identify appropriate BMPs to control the volume, rate, and potential pollutant load of storm water runoff from new development and redevelopment Projects in accordance with the NPDES General Permit, Regional Board Resolution No. R3-2013-0032, to minimize the generation, transport and discharge of pollutants. These requirements may

include a combination of structural and non-structural BMPs and would include requirements to ensure the proper long-term operation and maintenance of said BMPs. As a result, impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-2: Substantially Decrease Groundwater Supplies or Interfere with Groundwater Recharge

Implementation of the project would shift the location of current water use but would not result in a net increase in regional or local groundwater demand. The project site is not located within a groundwater basin Impacts would be **less than significant**.

The project area is not located within a groundwater basin; therefore, project activities and components would not affect groundwater recharge. The project would connect to the existing water system at Monterey High School, which uses water supplied by California American Water. Project construction would utilize a minimal amount of water for activities such as dust suppression and worker sanitary needs. However, this temporary and limited need would not be a long-term addition to water demand. Project operations would increase groundwater demand but would not increase overall demand on groundwater from California American. Attendees that currently utilize facilities during the MHS football games at the Monterey Peninsula College—which also obtains water from California American Water—would, in the future, utilize facilities at MHS (California American Water 2013). Therefore, the project would not substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-3: Substantially Alter Drainage in the Area That Would Result in Erosion, Flooding, or Increased Quantity of Stormwater Runoff During Facility Use

Construction of the proposed project would introduce additional impervious pavement to the project area as well as pervious artificial turf with an associated drainage system that would generally allow for infiltration and maintenance of current drainage patterns and runoff quantities. Therefore, impacts associated with the project would be **less than significant**.

The project site does not contain any streams or rivers; therefore, construction would not alter the course of any streams or rivers. The new softball, multi-use field, and weight room/team room would be constructed in a dirt area and result in decreased permeability at the lower field area. Most of the area would contain pervious artificial turf, while some paved areas would surround the field. This configuration would still allow for some infiltration but may slightly increase surface water runoff. Project design, as shown in L5.1 Drainage and Utility Plan in Appendix F, incorporates catch basins throughout the site on the southern, eastern, and western edges of the project site that would connect to existing stormwater drainage infrastructure. The catch basins facilitate water infiltration and pretreat runoff before entering the storm drainage system. The very slight increase in runoff would not exceed the capacity of existing stormwater drainage systems and it would not provide a substantial additional source of polluted runoff. Therefore, impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-4: Conflict with Water Quality Control Plan and Sustainable Groundwater Management Plan

The project is not subject to any sustainable groundwater management plan and would comply with the Water Quality Control Plan for the Central Coast Basin. There would be **no impact**.

California American Water extracts water from the Carmel Valley aquifer groundwater basin and/or the Salinas Valley Groundwater Basin- Seaside Subbasin. Neither of these basins are covered by a sustainable groundwater management plan. Therefore, the project would not conflict with or obstruct the implementation of a sustainable groundwater management plan.

The Central Coast Basin Plan, as relevant to the proposed project, indicates that control measures implemented by the RWQCB provide for attainment of the Plan's beneficial uses and water quality objectives, and that waste discharge restrictions are often used to avoid issues with water quality. Among the waste discharge restrictions are NPDES permits. As discussed under Impact 3.9-1, the project would obtain coverage under the Construction General Permit. There would be **no impact**.

Mitigation Measures

No mitigation is required for this impact.

3.10 LAND USE AND PLANNING

This land-use analysis evaluates consistency of the proposed project with applicable land-use plans and policies. The physical environmental effects associated with the project, many of which pertain to issues of land use compatibility (e.g., noise, aesthetics, air quality) are evaluated in other sections of Chapter 3 of this Draft EIR.

3.10.1 Regulatory Setting

FEDERAL AND STATE

No federal or State plans, policies, regulations, or laws related to land use are applicable to the project.

LOCAL

City of Monterey General Plan

The City of Monterey General Plan, adopted January 2005 and most recently amended in March 2016 under Resolution No. 16-042, contains several policies directly or indirectly related to land use and planning and the project, including the following:

GOAL a. Maintain a Land Use Plan Map to guide future development and land use.

- Policy a.1. Implement the Land Use Plan using the Land Use Plan Map and the following land use categories:
  - Public/Semi-Public. This category applies to all publicly owned facilities and those private facilities operated to serve the general public except for parks and recreation facilities, which are a separate category. Included in this category are: public schools, military facilities, the airport, cemetery, large public parking facilities, hospitals, museums, conference center, and some

3.10.2 Environmental Setting

LAND USE

Areas north, south, and west of MHS are residential neighborhoods, while there are commercial and government uses (e.g., MPUSD office, City of Monterey Fire Station and Police Department, and a hotel) to the east. The project site is located on approximately 5.7 acres of the eastern portion of the 12.3-acre MHS campus. The project site contains two areas: the 3.5-acre Dan Albert Stadium, which currently is used for sports and physical education activities, and the adjacent 2.2-acre area, which is currently used for overflow parking.

GENERAL PLAN DESIGNATIONS AND ZONING

The City of Monterey General Plan Land Use Map designates the MHS campus as Public/Semi-Public. This designation applies to public and private facilities operated to serve the general public, including public and private schools, military facilities, cemetery, parking, hospitals, museums, and historic buildings (City of Monterey 2005). The project site is located within the R-1 Residential Single-Family (R-1) Zoning District. The R-1 Zoning District provides for single-family detached homes in neighborhood at densities ranging from less than two dwelling units per acre (du/acre) to eight du/acre. Public facilities, including public schools, are permitted within this Zoning District.

3.10.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential land-use impacts is based on a review of the planning documents pertaining to the project study area., which include the City of Monterey General Plan and zoning ordinance.

THRESHOLDS OF SIGNIFICANCE

A land-use impact is considered significant if implementation of the Project would do any of the following:

- physically divide an established community; and/or
- cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: Divide an Established Community

The proposed would be constructed entirely within the existing MHS campus. Therefore, the project would not physically divide and establish community. There would be **no impact**.

The proposed project consists of a suite of stadium improvements as well as construction of the lower field. Project components and activities would occur entirely within the MHS campus and would not encroach into neighboring areas. Therefore, there would be **no impact**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.10-2: Result in an Environmental Impact Due to a Conflict with Land Use Plan, Policy, or Regulation

The project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating environmental effects. Therefore, there would be **no impact**.

Public facilities, including schools, are considered an allowable use for the Public/Semi-Public and R-1 Zoning District designations. Project components, such as the stadium improvements and new lower field would not change the nature of land uses occurring on and already allowed on the project site. The project would not conflict with any land use plan, policy, or regulation, including a plan adopted for the purpose of avoiding or mitigating an environmental effect, and therefore, there would be no resultant environmental impact. There would be **no impact.**

Mitigation Measures

No mitigation is required for this impact.

3.11 NOISE AND VIBRATION

This section includes a summary of applicable noise regulations, ground vibration standards, a description of ambient-noise conditions, and an analysis of potential short-term construction and long-term operational-source noise and vibration impacts associated with the proposed project. Detailed calculations conducted to support the analysis of construction-generated noise and vibration are provided in Appendix G, "Noise Exposure Calculations." The analysis of noise generated by evening events at the stadium is based on an assessment report prepared by Bollard Acoustical Consultants, which is provided in Appendix H. Mitigation measures are recommended as necessary to reduce significant noise impacts.

3.11.1 Regulatory Setting

FEDERAL

U.S. Environmental Protection Agency Office of Noise Abatement and Control

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control are the basis of noise exposure standards established at the state and local levels.

Federal Transit Administration Standards for Exposure to Ground Vibration

To address the human response to ground vibration, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 3.11-1. While these vibration standards were developed originally for construction and operation of public transportation facilities, they are applicable to and widely used for a variety of other vibration generating activities.

Table 3.11-1 Ground-Borne Vibration Impact Criteria for General Assessment for Human Response

Land Use Category	Ground-Borne Vibration Impact Levels for Human Response (VdB re 1 microinch/second)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 [4]	65 [4]	65 [4]
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB = vibration decibels referenced to 1 microinch/second and based on the root mean square (RMS) velocity amplitude.

[1] "Frequent Events" is defined as more than 70 vibration events of the same source per day.

[2] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

[3] "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

[4] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018:123–126.

STATE

California Department of Transportation Standards for Exposure to Ground Vibration

In 2013, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Manual (Caltrans 2013a). The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. While originally designed for use in highway-related construction, the principles of vibration reflected in the Caltrans standards are also applicable to any construction activity that creates ground-borne vibration. Table 3.11-2 presents recommendations for standards to use to describe the level of vibration that could result in damage to structures exposed to continuous vibration.

Table 3.11-2 Caltrans Recommendations Regarding Levels of Vibration Exposure

PPV (in/sec)	Effect on Buildings
0.4–0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006–0.019	Vibration unlikely to cause damage of any type

Notes: PPV= Peak Particle Velocity; in/sec = inches per second

Source: Caltrans 2013a

LOCAL

City of Monterey Municipal Code

The following sections of the City's Municipal Code are applicable to the proposed project.

Section 38-111. Performance Standards.

The following performance standards shall apply to all use classifications in all zoning districts:

A. *Noise*. All uses and activities shall comply with the provisions of the Monterey Noise Regulations (Sections 22-17 and 22-18). Decibel levels shall be compatible with neighboring uses, and no use shall create ambient noise levels which exceed the following standards [shown in Table 3.11-3]:

Table 3.11-3 Maximum Noise Standards by Zoning District

Zone of Property Receiving Noise	Maximum Decibel Noise Level (dB)
Open Space Districts	60
Residential Districts	60
Public and Semi-Public Districts	60
Commercial Districts	65
Industrial Districts	70
Planned Developments	Study Required

Notes: dB = decibel

Source: City of Monterey Municipal Code, Section 38-111.

1. *Duration and Timing*. The noise standards above shall be modified as follows to account for the effects of time and duration on the impact of noise levels:

    a. In R [Residential] districts, the noise standard shall be 5 dB lower between 10:00 p.m. and 7:00 a.m.

b. Noise that is produced for no more than a cumulative period of five minutes in any hour may exceed the standards above by 5 dB.

c. Noise that is produced for no more than a cumulative period of one minute in any hour may exceed the standards above by 10 dB.

2. *Director May Require Acoustic Study*. The Public Works Director may require an acoustic study for any proposed projects which could have, or create, a noise exposure greater than that deemed acceptable. (Ord. 3472 § 1, 2012)

3. *Noise Measurement*. Noise shall be measured at an appropriate distance from the source with a sound level meter, which meets the standards of the American National Standards Institute (ANSI) (Section S1.4 1979, Type 1 or Type 2). Noise levels shall be measured in decibels. The unit of measurement shall be designated as dB. A calibration check shall be made of the instrument at the time any noise measurement is made.

4. *Noise Attenuation Measures*. The Public Works Director may require the incorporation into a project of any noise attenuation measures deemed necessary to ensure that noise standards are not exceeded. (Ord. 3472 § 1, 2012)

5. *Appeals*. Decisions of the Public Works Director may be appealed by the applicant to the Planning Commission in accord with Article 27. (Ord. 3472 § 1, 2012)

B. *Vibration*. No use, activity, or process shall produce vibrations that are perceptible without instruments by a reasonable person at the property lines of a site.

City staff have confirmed that the City relies on noise consultants for the detailed interpretation of the noise standards in Section 38-111 of the Municipal Code (Cole, pers. comm., 2020). Thus, the noise standards in Section 38-111 of the Municipal Code are interpreted as follows for the analyses conducted in this EIR:

- The standards in the Table 3.11-3 are equivalent noise standards, L_{eq};
- The metric that would apply to the standard in Part A.1.b is L_{08}. For instance, residential land uses shall not be exposed to a noise levels that exceed 65 dB for more than 5 minutes in an hour (i.e., 8.3 percent of the hour) during daytime hours (between 7:00 a.m. and 10:00 p.m.), or noise levels that exceed 60 dB for more than 5 minutes in an hour during nighttime hours (between 10:00 p.m. and 7:00 a.m.). This type of metric is sometimes referred to as a "percent-exceeded sound level metric;" and
- The metric that would apply to the standard in Part A.1.c is L_{02}. This means that residential land uses shall not be exposed to a noise levels that exceed 70 dB for more than 1 minute in an hour (i.e., 0.0167 percent of the time) during daytime hours (between 7:00 a.m. and 10:00 p.m.), or noise levels that exceed 65 dB for more than 1 minute in an hour during nighttime hours (between 10:00 p.m. and 7:00 a.m.).

Section 38-112.2. Limitation on Construction Hours.

A. *Construction Hours*. The hours for all construction, alteration, remodeling, demolition and repair activities which are authorized by a valid City Building Permit, as well as the delivery and removal of materials and equipment associated with these activities, are limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, 8:00 a.m. to 6:00 p.m. Saturday and 10:00 a.m. to 5:00 p.m. Sunday.

The City has historically determined that construction-generated noise is exempt from the City's noise standards during these hours (Cole, pers. comm., 2020). Consistent with that practice, the EIR prepared for the City's General Plan Update determined that limiting noise-generating construction activities to specific daytime hours would reduce construction noise impacts to a less-than-significant level (City of Monterey 2004:2-98).

3.11.2 Environmental Setting

ACOUSTIC FUNDAMENTALS

Prior to discussing the noise setting for the project, background information about sound, noise, and common noise descriptors is needed to provide context and a better understanding of the technical terms referenced throughout this section.

Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB).

Addition of Decibels

Because decibels are logarithmic units, SPLs expressed in dB cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. All sound levels discussed in this section are expressed in A-weighted decibels. Table 3.11-4 describes typical A-weighted noise levels for various noise sources.

Table 3.11-4 Typical Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013b: Table 2-5

Human Response to Changes in Noise Levels

As described above, the doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the midfrequency (1,000 to 8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013b:2-18). In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013b:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Ground Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Ground-borne vibration is vibration of and through the ground. Ground-borne vibration can range from levels that are imperceptible by humans to levels that can create substantial damage to buildings and structures. Sources ground-borne of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery), short-term (e.g., construction period when heavy equipment is in use), or transient in nature (e.g., a demolition explosion). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Ground-borne vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second (in/sec) or in

millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2018:110; Caltrans 2013a:6).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2018:110, 199; Caltrans 2013b:7). This is based on a reference value of 1 microinch per second.

The typical background ground-borne vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration normally begins to be perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2018:120; Caltrans 2013b:27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and large-vehicle traffic on rough roads. (If a roadway is smooth, the ground vibration is rarely perceptible.) The range in vibration levels of interest in the context of construction and planning projects spans from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2018:113).

Ground vibration levels generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment.

Table 3.11-5 summarizes the general human response to different ground vibration-velocity levels.

Table 3.11-5 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 microinch/second and based on the root mean square velocity amplitude.

Source: FTA 2018:120

Common Noise Descriptors

Noise in our daily environment fluctuates over time. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors used throughout this section.

Day-Night Level (L_{dn}): L_{dn} is the energy average sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013a:2-48; FTA 2018:214).

Equivalent Continuous Sound Level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013b:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq}, is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by Caltrans and FTA (Caltrans 2013b:2-47; FTA 2018:210).

Percentile-Exceeded Sound Level (L_X): L_X represents the sound level exceeded for a given percentage of a specified period (Caltrans 2013b:2-16). For example, L_{02} is the sound level exceeded 2 percent of the time, and L_{08} is the sound level exceeded 8 percent of the time.

Maximum Sound Level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013b:2-48; FTA 2018:207–208).

Minimum Sound Level (L_{min}): L_{min} is the lowest instantaneous sound level measured during a specified period (Caltrans 2013b:2-48; FTA 2018:207–208).

Single Event Noise Level (SEL): SEL describes a receiver's cumulative noise exposure from a single impulsive noise event (e.g., a vehicle passing by or an aircraft flying overhead), which is a rating of a discrete noise event that compresses the total sound energy of the event into a 1-second time period, measured in decibels (Caltrans 2011a:D-20).

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which a noise level decreases with distance depends on geometric spreading, ground absorption, atmospheric effects, and shielding by natural or human-made features, described in detail below.

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

Shielding by Natural or Built Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013b:2-41; FTA 2018:42). Barriers higher than the line of sight provide increased noise reduction (FTA 2018:16). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation of sufficient height (FTA 2018:15, 104; 106).

EXISTING NOISE ENVIRONMENT

Existing Noise-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels when they are actively used.

Residences located nearest to the project site include the single-family homes northeast of the stadium on Van Buren Circle and the south end of Van Buren Circle; the single-family homes north of the stadium on Herrmann Drive and west of the stadium on Hermann Drive; the single-family homes on Larkin Street; the single-family homes and the Old Monterey Inn south of the stadium on the north side of Martin Street; and the single-family homes southeast of the lower field on Logan Lane. These receptors can be seen in the aerial photo in Figure 2-2.

Existing Noise Sources and Ambient Levels

The ambient noise environment within the immediate project vicinity is defined primarily by local traffic and activities at the high school. To characterize the existing ambient noise environment long-term (5-day continuous) noise level measurements were conducted at five locations among the residential areas closest to the project area from Thursday, February 20 to Monday, February 24, 2020 using equipment that meets all specifications of the ANSI for Type 1 sound level meters (ANSI S1.4).

During field visits, it was observed that construction of new classroom facilities on the high school site also contributed to the local ambient noise environment during daytime hours and was occurring during the sound level monitoring. From review of the ambient noise level data for the two nearest residences to that construction, it appears that the construction activities were generally limited to the hours between 7:00 a.m. and 5:00 p.m. and did not occur on Sunday, February 23rd.

Table 3.11-6 summarizes measurement locations and ambient noise. Details about these measurements are provided in Appendix H; locations of monitoring are shown in Figure 4 of Appendix H.

The ambient noise levels collected for the period between 5:00 p.m. and 10:00 p.m., which are shown in Table 3.11-6, are of interest because they do not reflect noise from the construction activity at the high school, which typically ends at 5:00 p.m. Also, the hours between 5:00 p.m. and 10:00 p.m. are the period when noise-generating events at the stadium would take place with the addition of field lighting proposed by the project.

Table 3.11-6 Summary of Existing Ambient Sound Level Measurements (dB)

Measurement Location[1]	L_{dn} on Weekday/ Saturday[2]	L_{dn} on Sunday	Period	L_{eq}	L_{max}	L_{min}	L_{02}	L_{08}	L_{50}	L_{90}
Herrmann Drive North of Stadium	55	47	Daytime	53	70	40	61	56	47	43
			Evening	42	60	37	48	44	40	38
			Nighttime	41	55	36	46	43	39	37
			5pm–10pm[4]	44	62	37	50	46	41	39
Van Buren Circle	50	41	Daytime	49	67	35	58	52	42	38
			Evening	38	57	33	44	40	36	34
			Nighttime	34	49	29	39	36	33	31
			5pm–10pm[4]	39	58	32	44	40	36	34
North End of Logan Lane	53	46	Daytime	48	69	37	56	50	43	40
			Evening	43	66	34	49	43	39	36

Measurement Location[1]	L_{dn} on Weekday/ Saturday[2]	L_{dn} on Sunday	Period	L_{eq}	L_{max}	L_{min}	L_{02}	L_{08}	L_{50}	L_{90}
			Nighttime	39	54	32	45	41	36	34
			5pm–10pm[4]	45	67	34	50	44	39	37
South of High School	50	44	Daytime	46	64	37	54	49	42	39
			Evening	40	57	35	46	41	38	36
			Nighttime	39	52	34	44	41	37	35
			5pm–10pm[4]	41	59	35	47	42	38	37
Herrmann Drive West of High School	51	47	Daytime	48	68	37	56	51	43	40
			Evening	43	63	35	51	44	39	37
			Nighttime	40	55	34	45	41	38	36
			5pm–10pm[4]	44	63	35	52	46	40	37

[1] Locations of sound level measurements are shown in Figure 4 in Appendix H.

[2] This shows the day-night noise level on the weekdays and Saturday, which are days when construction activity was present.

[3] This shows the day-night noise level on Sunday when no construction activity was present.

[4] These measurement data represent existing ambient sound levels in the project area during time between 5:00 p.m. and 10 p.m., which is when the level of noise-generating activity at the stadium could increase with the addition of stadium lighting. Also, the existing construction project at the high school was not active during these hours.

Notes: dB = decibels; L_{dn} = the energy average sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10:00 p.m. and 7:00 a.m.; L_{eq}= average of the sound energy during the measurement period; L_{max}= the highest instantaneous sound level measured during a specified period; L_{min}= lowest instantaneous sound level measured during a specified period; L_{02}= the sound level exceeded during 2 percent of the measurement period; L_{08}= the sound level exceeded during 8 percent of the measurement period; L_{50}= the sound level exceeded during 50 percent of the measurement period.; L_{90}= the sound level exceeded during 90 percent of the measurement period.

Source: Data collected by Bollard Acoustical Consultants, Inc. in 2020

3.11.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Construction-Generated Noise

To assess potential short-term noise and vibration impacts from construction activity, sensitive receptors and their relative exposure were identified. Construction-generated noise and vibration levels were determined based on methodologies, reference emission levels, and usage factors from FTA's *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) and the Federal Highway Administration's Roadway Construction Noise Model User's Guide (FHWA 2006). Reference noise and vibration levels for specific equipment or activity types are well documented, and their use is common practice in the field of acoustics.

Although school district projects are exempt from local ordinances and standards, noise standards established by the City of Monterey are reasonable and appropriate thresholds for determination of significance because the affected residential land uses are in the City's jurisdiction. Moreover, the City's noise standards represent the local community's collective sense of how much noise exposure is unacceptable. With regard to short-term exposure to noise generated by construction activity, as described above, the City has historically determined that construction-generated noise is exempt from the City's noise standards during the limited hours when construction is permitted to occur pursuant to Section 38-112.2 of the City's municipal code (Cole, pers. comm., 2020). It is reasonable to apply this exemption to the proposed project because the types of noise-generating construction activity would be similar to other construction activities that take place in the city and because none of the construction activity performed as part of the project would be close to any single noise-sensitive receptor for an extended period.

Construction-Generated Ground Vibration

The City has not established a quantitative standard for evaluating ground vibration generated by construction activity. Section 38-111.B of the Municipal Code addresses vibration but does not provide a clear description of the level of "vibrations that are perceptible without instruments by a reasonable person at the property lines of a site." It also does not state whether it applies to short-term sources of ground vibration, such as construction, or long-term sources of ground vibration. For these reasons, the analysis of construction-generated ground vibration in this EIR applies FTA's ground-borne vibration impact criteria (as shown in Table 3.11-1) for assessing the potential for ground vibration to result in human annoyance, and Caltrans recommendations regarding levels of vibration exposure to protect buildings from structural damage (as shown in Table 3.11-2).

Noise Associated with Games and Practices at Dan Albert Stadium and the Lower Field

The level of noise exposure at nearby residential land uses from noise-generating activities at evening games and practices at Dan Albert Stadium and the lower field were assessed based on ambient sound level measurements, reference noise levels for crowd noise and a public address system, and standard attenuation rates and modeling techniques. This analysis is based on a noise study prepared by Bollard Acoustical Consultants, which is provided in Appendix H.

THRESHOLDS OF SIGNIFICANCE

Per Appendix G of the CEQA Guidelines and City of Monterey noise standards and Caltrans vibration guidance described above, a noise impact would be significant if implementation of the project would result in any of the following:

- construction-generated noise levels exceeding the noise standards in Section 38-111 of the City's Municipal Code (as shown in Table 3.11-3) during the more noise-sensitive evening, nighttime, and early-morning hours for which construction activity is not exempt by the City. Exempt hours include those stated in Section 38-112.2 of the City's Municipal Code (i.e., from 7:00 a.m. to 7:00 p.m. Monday through Friday, from 8:00 a.m. to 6:00 p.m. Saturday and from 10:00 a.m. to 5:00 p.m. Sunday);
- construction-generated levels of ground vibration that exceed Caltrans's recommended standards with respect to the prevention of structural building damage (0.2 inches per second peak particle velocity [in/sec PPV] for normal buildings) at off-site buildings or structures (as shown in Table 3.11-2) or FTA's maximum acceptable vibration standard with respect to human response of 80 VdB at nearby residential land uses or 83 VdB at classroom buildings (as shown for Category 2 and Category 3 land uses, respectively, in Table 3.11-1); and
- noise from stadium events and activities that would exceed the City's maximum noise standards for residential land uses of 60 dB L_{eq}, 65 dB L_{08}, or 70 dB L_{02} during daytime hours (from 7:00 a.m. to 10:00 p.m. per the City's maximum noise standards) (as noted in Table 3.11-3) or 5 dB below those levels after 10:00 p.m. and before 7:00 a.m., per the City's maximum noise standards.

ISSUES NOT DISCUSSED FURTHER

The project would not result in more people attending school and events or working at the project site or another location and, therefore, would not result in the exposure of more people to excessive noise levels associated with airport operations; therefore, exposure to aircraft noise is not discussed further. Additionally, none of the operational activities proposed at the lower field or Dan Albert Stadium would generate vibration that is noticeable to the closest sensitive receptors, because the activities at the project site do not involve heavy equipment or other vibration-intensive uses; therefore, operational-phase vibration is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: Generate Substantial Noise Levels During Construction

Construction activity would expose offsite residential land uses to increased noise levels. All noise-generating construction activity would be performed during daytime hours when construction noise is exempt from noise standards established in the City's Municipal Code, Section 38-111. Therefore, construction activity would not expose nearby residential receptors to noise levels that exceed applicable noise standards or result in sleep disturbance at residential land uses. This impact would be **less than significant**.

Construction of the proposed project would generate noise through activities such as the use of heavy equipment.. Construction activities at the lower field would include removal of three oak trees, a fence, concrete stairs, and discus cage; site grading of the field; construction of a softball/multiuse synthetic field and scoreboard, a new weight room/team room building, and associated drainage and utility infrastructure. Construction activities at the stadium would include removal of the existing temporary press box and construction of a new press box, modifications to the existing home bleachers, installation of field lighting, and the installation of visitor bleachers. Landscaping would also be added. Short-term construction noise levels near the project site would fluctuate depending on the type, number, and duration of usage for the varying equipment. The effects of construction noise largely depend on the type of construction activities being performed, noise levels generated by those activities, distances to noise-sensitive receptors, topography, the relative locations of noise attenuating features such as vegetation and existing structures, and existing ambient noise levels.

Project construction is estimated to require approximately 11 months. The construction labor force would fluctuate over the 11-month period, depending on the activities taking place, with up to 40 workers on site during peak construction periods. Construction could occur 7:00 am to 7:00 pm weekdays and 8:00 am to 6:00 pm on Saturdays and 10:00 am to 5:00 pm Sundays.

The primary types of construction equipment would consist of a scraper/blade, backhoes, rollers, excavators, haul trucks, welders, and generators. Reference noise levels of heavy equipment likely to be used in construction activity are summarized in Table 3.11-7. The concrete/industrial saw would generate the highest noise level at 90 dB.

Table 3.11-7 Noise Levels Generated by Construction Equipment

Equipment Type	Typical Noise Level (dB) at 50 feet
Backhoe	80
Concrete/Industrial Saw	90
Concrete Mixer	85
Concrete Pump	82
Dozer	85
Dump Truck	84
Excavator	85
Front Loader	80
Generator	82
Grader	85
Jackhammer	85
Paver	85
Pneumatic Tools	85
Scraper	85

Notes: dB = decibels

Source: FHWA 2006:3

The combined noise levels generated by construction activity would fluctuate depending on the type, number, and duration and location in which vehicles and equipment would be used. The effects of construction noise largely depend on the type of construction activities occurring on any given day; the noise levels generated by those activities; distances to noise-sensitive receptors; any noise-attenuating features such as topography, vegetation, and existing structures; and existing ambient noise levels.

Residences located near the project site would, at times, experience elevated noise levels from various construction activities. Existing noise-sensitive receptors that could be exposed to construction-noise include the single-family homes along Logan Lane southeast of the lower field, the single-family homes north of the stadium between Larkin Street and Van Buren Street and on Van Buren Circle, the single-family homes and the Old Monterey Inn on the north side of Martin Street south of the stadium, and high school buildings. Also, All Things New Covenant Church holds services on Sundays in the high school building west of the stadium and could be subject to elevated noise levels during services if construction is occurring. To represent the construction noise these various receptors would experience, a summary of types of construction and which receptors would be affected the most is provided:

- **Grading and earth moving at the lower field:** One of the most intensive construction-related activities would be the grading and other earth disturbance activity at the lower field. The combined noise level of two earth-moving pieces of equipment (e.g., dozer, excavator, grader, scraper) operating close to each other would be 84 dB L_{eq} and 88 dB L_{max} at 50 feet. At times when these pieces of equipment are operated near the southeastern corner of the lower field, they would expose the nearest house on Logan Street, approximately 85 feet away, to noise levels of 78 dB L_{eq} and 82 dB L_{max}. At times when these pieces of equipment are operated near the northwest corner of the lower field they would expose the nearest house on Van Buren Circle, approximately 200 feet away, to noise levels of 68 dB L_{eq} and 72 dB L_{max}. The houses along Martin Street and south of the lower field are at least 225 feet away from where grading and ground disturbance activity would occur and existing buildings that are part of the high school would mostly block the line of site from the lower field to these receptors, resulting in less noise exposure at these receptors.
- **Concrete cutting:** A concrete saw, which generates a reference noise level of 83 dB L_{eq} and 90 dB L_{max} at 50 feet, may be used in the removal of the concrete stairs near the northwest side of the lower field. If so, it would expose the nearest house on Van Buren Circle, approximately 185 feet away, to noise levels of 68 dB L_{eq} and 75 dB L_{max}.
- **Temporary press box removal, permanent press box construction:** Removal of the existing temporary press box and construction of a new press box on the home side (i.e., the west side) of the stadium could also involve multiple pieces of heavy equipment, such as a haul truck and front loader. The combined reference noise levels of these two pieces of equipment would be 82 dB L_{eq} and 86 dB L_{max} at 50 feet. Noise levels from this activity would attenuate to 63 dB L_{eq} and 67 dB L_{max} at closest house on Larkin Street, which is 400 feet away and the nearest house with a direct line of site to press box. Assuming an exterior-to-interior noise reduction of 24 dB (EPA 1978:11), the noise level inside the school could be 58 dB L_{eq} and 62 dB L_{max}. This building is also used by for worship services on Sundays by All Things New Covenant Church.
- **Construction of visitor bleachers:** Construction of new bleachers on the visitor side of the stadium would involve the use of heavy equipment such as a haul truck and front loader. The combined reference noise levels for these two pieces of equipment would be 82 dB L_{eq} and 86 dB L_{max} at 50 feet. The closest house, on Van Buren Circle and approximately 200 feet away, would be exposed to noise levels of 66 dB L_{eq} and 70 dB L_{max} during construction of the visitor bleachers.
- **Stadium light installation:** A crane truck and a boom lift (e.g., Gradall lift) would likely be used to install the stadium lights. The combined reference noise levels for these two pieces of equipment are 83 dB L_{eq} and 88 dB L_{max} at 50 feet. The closest this activity would occur to an off-site receptor would be during the installation of the lights on the northeast side of the stadium, which is approximately 140 feet from a house on Van Buren Circle. At this distance, the noise levels would attenuate to 74 dB L_{eq} and 79 dB L_{max}.
- **Haul truck travel on local roads:** Haul trucks transporting equipment and materials to and from the site along Pacific Street and Logan Lane could also expose residences along these roadways to increased noise levels. Reference SELs for heavy truck passbys were measured and reported in an EIR for a proposed commercial center

(City of Ceres 2010:4.10-10). The results of the measurements indicated that heavy truck passby levels ranged from 77 to 85 dBA SEL, with a mean of 83 dBA SEL at a reference distance of 50 feet. However, each truck passby would last 5 to 10 seconds, and truck trips to and from the site would occur during daytime hours.

Detailed calculations for these noise exposure estimates are provided in Appendix G, "Noise Exposure Calculations."

The noise exposure levels presented above are conservative because they represent the highest levels of noise exposure at noise-sensitive receptors when noise-generating construction activity is the closest. Noise exposure levels would be lower when construction activity is taking place at more distant areas of the project site. Also, no single construction activity is anticipated to take place in the same location for the entire projected 11-month construction period, so that any one receptor would not be exposed to substantial noise for an extended period. Moreover, and all construction activity would occur during daytime hours specified in Section 38-112.2 of the City's Municipal Code, and the City has historically determined that construction-generated noise is exempt from the City's noise standards during these hours (Cole, pers. comm., 2020). Thus, it is not anticipated that construction noise would result in sleep disturbance at these residences. For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.11-2: Generate Vibration During Construction

Project construction would likely require the use of heavy equipment that would generate ground vibration. Based on the anticipated distance to nearby sensitive land uses, construction activity would not result in ground vibration levels that could cause annoyance to onsite or offsite receptors. Therefore, this impact would be **less than significant**.

Construction activities generate varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and, at high levels, can cause annoyance and sleep disturbance.

Project construction would not involve blasting or the use of pile drivers, which generate substantially higher levels of ground vibration than other types of construction equipment (FTA 2018:184). For the proposed project, construction activities that use a dozer or other large equipment would generate the highest levels of ground vibration. The largest equipment, such as dozers, scrapers, and/or graders, would be used primarily during grading and earth moving stages of construction and would be most commonly used for construction activities at the lower field, as shown in the schematic in Figure 2-3. Larger construction equipment can generate ground vibration levels of 0.089 in/sec PPV and 87 VdB at 25 feet (FTA 2018:184). Based on FTA's recommended method for estimating the propagation of ground vibration from the source, vibration levels from the use of large construction equipment could exceed Caltrans recommended level of 0.2 in/sec PPV with respect to the structural damage in normal dwellings within 15 feet of where the construction equipment is being used. Detailed propagation calculations are provided in Appendix G. Because no buildings are located within 15 feet of where the use of heavy equipment would take place, it is not anticipated that ground vibration could result in structural damage to any nearby buildings.

Based on FTA's recommended method for estimating the propagation of ground vibration from the source, vibration levels from construction activity could exceed the standard for assessing human disturbance of 80 VdB for FTA-defined Category 2 land uses within 43 feet of the location where it takes place and the standard for assessing human disturbance of 83 VdB for FTA-defined Category 3 land uses within 35 feet. Detailed propagation calculations are provided in Appendix G. Residences are considered Category 2 land uses and classroom buildings are considered Category 3 land uses, as defined by FTA. Because no residences are located within 43 feet from where use of heavy equipment would take place and no classroom buildings are located within 35 feet from where use of heavy equipment would take place, construction would not result in human disturbance at offsite or onsite receptors.

Because construction activities would not result in structural damage to buildings or human disturbance at onsite or offsite receptors, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.11-3: Generate Noise During Evening Use of Dan Albert Stadium and Daytime Use of the Lower Field

Noise generated by evening activities at the Dan Albert Stadium and daytime activities at the lower field would expose nearby residences to noise levels that are substantially louder than existing conditions and that exceed City noise standards. This would be a **significant impact**.

Use of the Dan Albert Stadium during evening hours would generate noise. The project includes the installation of four new 70-foot-tall light standards at Dan Albert Stadium, which would allow for games and practices to take place during evening hours after the sun sets. It is anticipated that this would be the project's biggest long-term effect on the noise environment because, as shown in Table 3.11-6, existing ambient noise levels during evening hours at the surrounding residences are relatively quiet. The primary sources of noise during games and events at the stadium are crowd noise and speech and music amplified on the public address system. In addition, the creation of outdoor activity areas at the lower field would introduce noise-generating activities in an area where such activities don't currently typically occur. Because no lighting is proposed for the lower field, the noise generation of outdoor activities occurring within that area would be limited to daylight hours. Table 3.11-8 lists the reference noise levels for these sources. Reference noise levels as well as other aspects of this analysis are supported by a stadium noise study prepared by Bollard Acoustical Consultants for the proposed project. This study is provided in Appendix H.

Table 3.11-8 Reference Noise Levels for Activities at Outdoor Athletic Facilities

Noise Source	Reference Sound Levels 100 feet from Effective Noise Center of Source (dB)[1]	
	L_{max}	L_{eq}
Crowd in Existing Home Bleachers of Stadium	90	75
Crowd in Proposed Visitor Bleachers of Stadium	80	35
Public Address System at Stadium	85	70
Activities at Lower Field	75	55

Notes: dB = decibels; L_{eq}= average of the sound energy during the measurement period; L_{max}= the highest instantaneous sound level measured during a specified period.

1. For more information about these reference noise levels, refer to the stadium noise assessment in Appendix H.

Source: Bollard Acoustical Consultants, Inc. 2020

The noise levels from crowds at the existing home bleachers and new visitor bleachers, as well as the public address system, were used to simulate the combined noise level of games and events held at the stadium. The combined levels of noise exposure at nearby residences was estimated based on number of factors, including standard attenuation rates, directionality of the noise sources, and intervening topography and structures. Table 3.11-9 shows the predicted noise levels at the six most affected residential receptors by each noise source and whether the predicted levels would exceed these applicable noise standards at these locations. Table 3.11-9 also shows the levels of noise exposure at nearby receptors from activities that would occur at the lower field such as physical education classes during school hours, sports team practices after school, and daytime games on weekends. It is assumed that similar noise levels could be generated by players and coaches at team practices in the lighted stadium during evening hours.

As shown in Table 3.11-9, noise-generating activities on the lower field, which would only take place during daylight hours, would not expose any nearby residential receptors to noise levels that exceed applicable City standards. However, Table 3.11-9 shows that multiple residences would be exposed to noise levels that exceed the City's noise

standards of 70 dB L_{02} and 65 dB L_{08} by one or more of the individual noise sources associated with evening events at the stadium. Most exceedances of the 70 dB L_{02} and 65 dB L_{08} standards would result from crowd noise from the existing home bleachers and the public address system. The City's daytime noise standard of 60 dB L_{eq} would also be exceeded at the residence on the south end of Larkin Street just north of the stadium. Moreover, the City's noise standards for residential land uses are 5 dB lower after 10:00 p.m. (65 dB L_{02}, 60 dB L_{08}, and 55 dB L_{eq}) to reflect greater sensitivity to noise during nighttime hours. Based on the projections in Table 3.11-9, all three of these noise standards would be exceeded at nearby residences if, for instance, a football game continued past 10:00 p.m.

Table 3.11-9 also shows that residential receptors would be exposed to increases in noise levels (L_{02}, L_{08}, and/or L_{eq}) more than 5 dB above existing conditions, which is generally perceived as a distinctly noticeable increase, and increases greater than 10 dB, which is generally perceived as a doubling of loudness (Caltrans 2013b:2-10), during evening games at Dan Albert Stadium, when team practices are held under the lights at Dan Albert Stadium during the evening, and when the lower field is actively used for athletic activities during daytime hours.

Groups of spectators walking between parking areas and Dan Albert Stadium may also generate noise. However, most walking routes between the stadium and nearby parking areas expected to be utilized by spectators do not pass directly by many residences. Any noise would likely be limited to periodic talking as spectators walk by and would be minimal in level of noise and duration of noise.

In summary, because noise generated during use of these new facilities would expose residents to noise levels that exceed the City's noise daytime standards of 70 dB L_{02}, 65 dB L_{08}, and 60 dB L_{eq} and/or increases that are clearly noticeable or perceived as twice as loud as existing ambient noise levels, this impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.11-3: Minimize Noise Levels Generated by Activities and Events at Dan Albert Stadium

The Monterey Peninsula Unified School District shall implement all feasible measures to minimize the levels of noise exposure at off-site residences from noise generated by events at Dan Albert Stadium. The goals of this mitigation are to prevent nearby residences from being exposed to noise levels that exceed the City's L_{02}, L_{08}, and L_{eq} standards and/or experience noise levels substantially greater than existing conditions. Noise reduction measures include:

- Remove the PA system from the proposed project and restrict the use of Dan Albert Stadium for spectator events. Spectator events shall not be allowed during evening hours.
- If removal of the PA system from the proposed project and restricting spectator events to daytime hours is not feasible,
  - Prohibit use of the public address system when it is not specifically necessary for a game, event, or other activity. For example, safety-related announcements, announcements required by governing leagues, and announcements regarding game play such as scoring summaries are necessary and shall be allowed. Announcements that are meant to induce cheering by the crowd, however, are not necessary. This direction shall be posted at the control station for the public address system.
  - The public address system shall be designed to focus the sound within the bleacher areas and minimize spillover to adjacent residential areas. This shall involve specifying the direction and height of the loudspeakers, as well using the minimum volume levels required for intelligibility over background crowd noise.
  - Events shall be scheduled to conclude before 10:00 p.m or earlier. Note that as long as an event is scheduled to end at 10 p.m., this measure does not require that an event stop at 10 p.m. should it last beyond its scheduled time.

Table 3.11-9 Comparison of Predicted Noise Levels at Nearest Residences to City of Monterey Noise Standards (dB)

New Noise Source	Residential Receptors' Location[1]	Existing Ambient Noise Levels[2]			Predicted Noise Levels[3]			Change in Noise Levels			Standard(s) Exceeded?
		L_{02}	L_{08}	L_{eq}	L_{02}	L_{08}	L_{eq}	L_{02}	L_{08}	L_{eq}	
Crowd Noise from Existing Home Bleachers at Stadium (5–10 p.m.)	Herrmann Drive North of Stadium	50	36	44	72	72*	57	22	36	13	Yes
	Van Buren Circle	44	40	39	72	72*	57	28	32	18	Yes
	North End of Logan Lane	50	44	45	72	72*	57	22	28	12	Yes
	South of High School	47	42	41	68	68*	53	21	26	12	Yes
	Herrmann Drive West of High School	52	46	44	56	55	45	4	9	1	Yes
	South End of Larkin Street	50	36	44	80*	79*	65*	30	43	21	Yes
Crowd Noise from Proposed New Visitor Bleachers at Stadium (5–10 p.m.)	Herrmann Drive North of Stadium	50	36	44	66	66*	52	16	30	8	Yes
	Van Buren Circle	44	40	39	65	65	51	21	25	12	Yes
	North End of Logan Lane	50	44	45	54	53	46	4	9	1	Yes
	South of High School	47	42	41	61	61	47	14	19	6	Yes
	Herrmann Drive West of High School	52	46	44	55	53	45	3	7	1	Yes
	South End of Larkin Street	50	36	44	66	65	51	16	29	7	Yes
Public Address System at Stadium (5–10 p.m.)	Herrmann Drive North of Stadium	50	36	44	68	68*	53	18	32	9	Yes
	Van Buren Circle	44	40	39	68	68*	53	24	28	14	Yes
	North End of Logan Lane	50	44	45	64	64	50	14	20	5	Yes
	South of High School	47	42	41	73*	73*	58	26	31	17	Yes
	Herrmann Drive West of High School	52	46	44	67	67*	53	15	21	9	Yes
	South End of Larkin Street	50	36	44	75*	75*	61*	25	39	17	Yes
Activities at Lower Field (Daylight Hours)	Herrmann Drive North of Stadium	61	56	53	62	58	53	1	2	0	No
	Van Buren Circle	58	52	49	60	57	49	2	5	0	No
	North End of Logan Lane	56	50	48	63	62	49	7	12	1	Yes
	South of High School	54	49	46	55	52	46	1	3	0	No
	Herrmann Drive West of High School	56	51	48	56	52	48	0	1	0	No
	South End of Larkin Street	50	36	44	57	56	45	7	20	1	Yes
Combination of Crowd Noise from Home and Visitor Bleachers and Public Address System (5–10 p.m.)	Herrmann Drive North of Stadium	50	36	44	74[4]	74[4]	59	24	38	15	Yes
	Van Buren Circle	44	40	39	74[4]	74[4]	59	30	34	20	Yes
	North End of Logan Lane	50	44	45	73[4]	73[4]	58	23	29	13	Yes
	South of High School	47	42	41	74[4]	74[4]	59	27	32	18	Yes
	Herrmann Drive West of High School	52	46	44	67[4]	67[4]	53	15	21	9	Yes
	South End of Larkin Street	50	36	44	81[4]	81[4]	66*	31	45	22	Yes

Notes: dB = decibels; L_{02}= the sound level exceeded during 2 percent of the measurement period; L_{08}= the sound level exceeded during 8 percent of the measurement period.

* indicates that the predicted noise level would exceed the applicable daytime standard.

1. Noise levels are evaluated for the six most affected residential receptors.
2. Existing ambient noise levels are based on the sound level measurements collected at or near receptors, which are summarized in Table 3.11-6.
3. The applicable noise standards for residential districts during daytime hours (7:00 a.m. to 10:00 p.m.) are 70 dB L_{02}, 65 dB L_{08}, and 60 dB L_{eq}, respectively. These standards are based on Section 38-111 of the City of Monterey Municipal Code.
4. The estimated combined L_{02} and L_{02} noise levels from the existing home bleachers, the proposed new visitor bleachers, and the public address system during a stadium event are conservatively high because their estimation assumes that the higher noise levels from these sources would occur at the same time.

Source: Bollard Acoustical Consultants, Inc. (BAC)

Significance after Mitigation

When feasible, implementation of specific measures for reducing noise levels generated by the public address system, such as those listed under Mitigation Measure 3.11-3, could minimize exceedances of the City's noise standard of 65 dB L_{08} at all nearby residences. Nonetheless, crowd noise generated at stadium events would have the potential to expose nearby residences to noise levels that exceed the City's noise standards. Moreover, should that restriction be infeasible, games can be scheduled so that it is highly likely that they will end before 10 p.m.; however, scheduling events to absolutely ensure they conclude before 10:00 p.m. may not always be feasible, such as when football games experience an extensive delay in play midgame or require overtime play to complete the game. Also, it is challenging to control crowd noise at athletic games because ultimately each individual fan or spectator controls their own noise generation. For example, encouraging attendees to limit their cheering would not necessarily result in compliance. In addition, there are no feasible measures for reducing the levels of noise exposure at the residence on the south end of Larkin Street and the north end of Logan Lane from noise generated by activities on the lower field. Thus, implementation of Mitigation Measure 3.11-3 would not guarantee compliance with the City's noise standards at nearby residential land uses and these receptors would be exposed to excessive increases in noise during stadium events relative to existing ambient noise levels during the daytime and evening hours. Because there would be no other feasible mitigation measures to ensure the applicable noise standards are achieved and excessive noise increases would not be experienced at nearby residences, this impact would be **significant and unavoidable**.

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3.12 TRANSPORTATION

This section describes the applicable federal, state, and local regulations and policies related to transportation; discusses the existing roadway network and transportation facilities in the plan area; describes existing transportation conditions within plan area; and analyzes the potential impacts from implementation of the project on transportation.

3.12.1 Regulatory Setting

FEDERAL

There are no federal laws or regulations addressing transportation that are relevant to the project.

STATE

Senate Bill 743

Senate Bill (SB) 743, passed in 2013, required the California Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address transportation metrics under CEQA. As stated in the legislation and codified as Public Resources Code Section 21099, upon adoption of the new guidelines, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

OPR published its proposal for the comprehensive updates to the CEQA Guidelines in November 2017 which included proposed updates related to analyzing transportation impacts pursuant to SB 743. The Office of Administrative Law approved the updated CEQA Guidelines on December 28, 2018; and according to the new CEQA Guidelines (Section 15064.3) vehicle miles traveled (VMT) will replace congestion as the metric for determining transportation impacts. The CEQA Guidelines state that "lead agencies may elect to be governed by these provisions of this section immediately. Beginning July 1, 2020, the provisions of this section shall apply statewide." Although Public Resources Code Section 21099 directs that automobile delay and congestion "shall not" be considered a significant impact on the environment upon certification of the guidelines, the certified guidelines themselves do not require consideration of VMT until July 1, 2020, a full 18 months following certification of guidelines. Although lead agencies can elect to use VMT sooner, they are not required to do so.

The guidance provided relative to VMT significance criteria is focused on residential, office, and retail uses. However, as noted in the updated CEQA Guidelines pertinent to evaluation of VMT, agencies are directed to choose metrics that are appropriate for their jurisdiction to evaluate the potential impacts of a project in terms of VMT.

REGIONAL

Association of Monterey Bay Area Governments

The Association of Monterey Bay Area Governments (AMBAG) is the Metropolitan Planning Organization (MPO) for the Monterey Bay area and performs metropolitan level transportation planning on behalf of the region. AMBAG is responsible for preparation of the Metropolitan Transportation Plan (MTP) and Sustainable Communities Strategy (SCS). AMBAG coordinates the development of the MTP with regional transportation planning agencies, transit providers, and state and federal agencies. The SCS provides a plan for the region to help reduce greenhouse gas emissions to meet state goals and lessen the impacts of global climate change. AMBAG most recently updated the 2040 MTP/SCS in 2018. The 2040 MTP/SCS sets policies, strategies, and investments designed to maintain and improve the transportation system and to meet the needs of the region through 2040. Strategies identified in the 2040 MTP/SCS include focusing

growth in high quality transit corridors, providing more travel choices, and maintaining a safe and efficient transportation with improved access to jobs and education for residents (AMBAG 2018).

Monterey County Regional Transportation Plan

The Transportation Agency for Monterey County (TAMC) is designated by the state to serve as the Regional Transportation Planning Agency for Monterey County. TAMC plans for and funds transportation system improvements including mobility, safety, access, environmental quality, and economic improvements. TAMC most recently adopted the 2018 Regional Transportation Plan (RTP) which serves as a roadmap to meet regional transportation challenges through 2040. The RTP is updated every four years and provides a basis for actions to allocate state and federal funding to transportation projects. The RTP outlines TAMC's priorities for meeting future transportation mobility needs, consistent with the policy goals and objectives adopted by TAMC, as well as within the constraints of transportation revenues forecast over the 22-year planning horizon of the document (TAMC 2018).

LOCAL

City of Monterey General Plan

The City's General Plan contains the following goals and policies that are relevant to the proposed project:

Circulation Goal a. Improve transportation and parking systems by managing them more effectively before investing in costly roadway and parking expansion projects.

- **Policy a.3.** Adopt parking programs that maximize occupancy of public parking spaces to minimize parking impacts in adjacent residential neighborhoods.

Circulation Goal c. Provide a safe, efficient, well-maintained, and environmentally sound roadway system that supports the "complete streets" concept of equality of choice among all modes of transportation.

- **Policy c.4.** Create and maintain a roadway system that is safe, unobtrusive, and easy to use for all modes of transportation.

Circulation Goal d. Promote a pedestrian/bicycle-friendly environment where public spaces, streets, and off-street paths offer a level of convenience, safety, and attractiveness that encourage and reward the use of alternative modes of transportation.

- **Policy d.3.** Create an integrated, safe, and convenient pedestrian system connecting city neighborhoods, schools, recreation areas, commercial areas, and places of interest.

Circulation Goal e. Optimize the use of Monterey's existing parking supply to minimize the amount of land dedicated to parking needs, especially in commercial business districts and along the scenic coastline.

- **Policy e.9.** Improve utilization of existing parking and create new parking opportunities through partnerships and cooperation in order to meet parking needs with fewer total spaces.

Monterey on the Move

The City of Monterey adopted Monterey on the Move in March 2013. Monterey on the Move is the City's multi-modal mobility plan and identifies the development of a pedestrian, bicycle, and local transit system that provides connectivity between neighborhoods and major destinations, such as parks, public facilities, schools, commercial services and employment centers, residential neighborhoods, and parking structures (City of Monterey 2013). The main objectives of Monterey on the Move include the following:

- improve pedestrian circulation citywide by providing safe convenient connections between residential, commercial, and recreational areas;
- update the City's Bicycle Transportation Plan and identify ways to strengthen the connection between bicycling, walking, and transit;
- ensure that the plan serves the diverse needs of the community while contributing to economic growth;

- ensure that the plan supports local, regional, and state goals to reduce GHG emissions; and
- engage all relevant stakeholders in the planning process including those who are traditionally under-represented.

3.12.2 Environmental Setting

This section describes the existing environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated. The environmental setting for transportation includes baseline descriptions of roadway, bicycle, pedestrian, and transit facilities.

TRANSPORTATION STUDY AREA

The transportation study area was identified based on the Monterey High School (MHS) service area and the existing and proposed locations of school related activities. Additionally, identification of the study area included consideration of the project's expected travel characteristics, primary travel routes, mix of transportation modes, and other considerations. The study area also includes bicycle, pedestrian, and transit facilities in the project vicinity.

Roadway Network

MHS is served by a roadway network consisting of state highways operated and maintained by the California Department of Transportation, and arterial and collector roadways operated and maintained by the City of Monterey. Regional access to the site is provided via State Route (SR) 1/68. Local access to the site is provided via Fremont Street, Pacific Street, Larkin Street, Herrmann Drive, Logan Lane, and Martin Street. Descriptions of these facilities are provided below.

- SR 1 is a north-south highway extending north through San Francisco and south through the Los Angeles metro area. SR 68 is a primarily east-west highway that extends between Salinas and Monterey. These routes merge in the vicinity of the project as a four-lane highway. Access to the project site is provided from SR 1/68 in the project vicinity by full interchanges at Soledad Drive/Munras Avenue and Fremont Street/Aguajito Road.
- Fremont Street is a major arterial that provides access to downtown Monterey between SR 1/68 and its terminal intersection with Pearl Street. West of this intersection, Fremont Street transitions into Pearl Street/Jefferson Street. Fremont Street is a four-lane major between SR 1/68 and Munras Avenue. West of Munras Avenue, it is a three-lane arterial with two westbound and one eastbound travel lanes. Access to the project site from Fremont Street is provided via its continuation as Pearl Street at its intersection with Pacific Street
- Pacific Street is a minor arterial that travels north-south between Lighthouse Avenue and Soledad Drive. Access to the school is provided directly from Pacific Street via driveways. Additional access from Pacific Drive to the site is provided via intersections with Madison Street and Logan Lane.
- Larkin Street is a two-lane, bi-directional local street that travels north-south between MHS and Scott Street. Larkin Street provides direct access to MHS from the north.
- Herrmann Drive is a two-lane, bi-directional local street that provides direct access to MHS and the residential neighborhoods west of the project site. Street parking is prohibited along Herrmann Drive in the vicinity of the project site.
- Logan Lane is a single lane, bi-directional local street southeast of, and adjacent to, the project site. One-hour street parking is allowed along portions of Logan Lane.
- Martin Street is a two-lane, bi-directional collector that provides direct access to MHS from the south.

Vehicle Miles Traveled Data

VMT is a metric that counts the number of miles traveled by motor vehicles that are generated by or attracted to a project. A single "VMT" represents one vehicle traveling on a roadway for one mile. Regardless of the number of passengers in a vehicle, each vehicle traveling on a roadway generates one VMT for each mile it travels.

AMBAG forecasted VMT in the 2040 MTP/SCS for the counties of Monterey, San Benito, and Santa Cruz for the year 2040 using a baseline of 2015 conditions. The region is expected to experience an approximately 24 percent increase in VMT in 2040 compared to the year 2015 conditions. A summary of the estimated regional daily VMT is shown in Table 3.12-1.

Table 3.12-1 AMBAG Forecasted Daily Vehicle Miles Traveled

County/Region	Year 2015 Conditions	Year 2040 Conditions with 2040 MTP/SCS
Monterey	9,764,441	12,091,679
San Benito	1,382,599	2,119,312
Santa Cruz	4,688,870	5,476,518
AMBAG Region (Total)	**15,835,910**	**19,687,508**

Source: AMBAG 2018

TRANSIT SYSTEM

Transit service in the vicinity of the project site is provided by Monterey-Salinas Transit (MST), which provides regional transit service between the Monterey Peninsula and Salinas, as well as commuter/long-distance transit service to Santa Cruz, San Jose, and King City. Locally, MST operates fixed-route bus service within the cities of Monterey, Sand City, Seaside, and Pacific Grove. The following two bus routes provide service to the project site via stops on Pacific Street:

- Route 3, Community Hospital of the Monterey Peninsula (CHOMP) – Monterey, provides services between the Monterey transit Plaza, Del Monte Center, and CHOMP.
- Route 70, Presidio – La Mesa, provides service between the Presidio of Monterey, the Naval Postgraduate School, and the La Mesa Military Housing Complex (east of SR 1/68).

In addition to fixed-route bus service, MST operates a paratransit program known as RIDES. RIDES provides a ride-share program for customers with disabilities who have limited access to, or are unable to use regular fixed-route buses (MST 2020).

The Monterey Peninsula Unified School District (MPUSD) provides bus service for students located within each school's bussing boundary. MPUSD buses provide pick-up and drop-off services for students as an alternative to driving private vehicles to the schools.

BICYCLE AND PEDESTRIAN SYSTEM AND SAFETY

Bicycle System

The bicycle network in the City of Monterey has local and regional on-road bikeways, separated bicycle paths, and trails. The City's system of bicycle lanes and trails are primarily designed to facilitate the movement of tourists and residents between major commercial areas including downtown, the Naval Postgraduate School, and Cannery Row. Bikeways are classified into the following types:

- Class I bikeways include off-street bicycle paths, separated from vehicular traffic;
- Class II bikeways include on-street bike lanes separated from vehicular traffic by pavement striping; and
- Class III bikeways include on-street bike routes in lanes shared with vehicular traffic.

Bikeways that currently exist in the project vicinity include multiple Class III bicycle routes in the downtown core that connect to the Monterey Bay Coastal Trail which is a Class I bicycle path that travels along the Monterey Bay coast between Marina and Pacific Grove.

In February 2013, as part of the Monterey on the Move plan, the City proposed bikeways in the project vicinity along Pacific Street including Class II bicycle lanes between Madison Street and Soledad Drive, and Class III shared routes between Madison Street and Scott Street. The City also proposed bicycle boulevards (i.e. designated bicycle routes with separated facilities) through the downtown area along Pearl Street.

Currently, bicycle facilities along Pacific Street between Madison Street and Soledad Drive consist of a combination of Class III shared routes and Class II bicycle lanes. There are no existing bicycle facilities along Pacific Street north of Madison Street.

Pedestrian System

Pedestrian facilities in the project vicinity general include sidewalks along arterial and collector roadways, including sidewalks along both sides of roadways used to access the project site including Pacific Street, Madison Street, and Larkin Street. Herrmann Drive, which is a roadway used to access the project site from the north, has a sidewalk along the southern side of the road only. These pedestrian facilities provide pedestrian access to and from the school and provide pedestrian connections to the downtown area, Monterey Public Library, and Monterey City Hall. Roadways to the south (i.e. residential streets off Martin Street) and west (i.e. residential streets off Via Del Rey and Herrmann Drive) of MHS generally have low traffic volumes and limited pedestrian facilities. Sidewalks in these areas are intermittent and discontinuous along some roadways, while the majority of these roadways have no sidewalks and narrow shoulders.

Pedestrian Safety

UC Berkeley maintains a Transportation Injury Mapping System (TIMS). In the 10-year period of January 1, 2010 through December 31, 2019, across the City of Monterey, there were 178 pedestrian collisions involving 191 pedestrians; 2 were fatalities. This equates to about 18 collisions per year in the City of Monterey. There were about 25 pedestrian collisions near the Monterey High School during this time period, or about 2.5 per year (UC Berkeley 2020). Of the collisions between 2010 and 2019, there were 39 pedestrian collisions involving 49 youth pedestrians (18 years old or younger) in the City; there were no fatalities. There were 4 pedestrian collisions involving high school aged youth (13 to 18 years old) in the same time period near Monterey High (UC Berkeley 2020).

PARKING

Parking at MHS consists of five on-site parking areas providing a total of 335 striped parking spaces. Approximately 100 additional parking spaces are provided in an informal dirt overflow lot adjacent to and east of Dan Albert Stadium within the project site. This informal dirt parking lot is currently used to provide overflow parking during MHS events when all other on-site MHS parking lots are at capacity. Typically, events requiring the use of this overflow parking lot occur during school hours when all other MHS parking lots are occupied by students and faculty.

On-street parking is available along streets adjacent, and in close proximity to the project site including, but not limited to Martin Street, Pacific Street, Van Buren Street, and El Dorado Street. Generally, where on-street parking is allowing in vicinity of the project site it is either timed or metered between 9:00 a.m. and 6:00 p.m. Parking becomes unrestricted after 6:00 p.m. along Pacific Street and Martin Street, and along most streets in the downtown core.

MHS is located within one-half mile of multiple City of Monterey public parking lots. The City owns and operates the following public parking lots within this radius from the project site:

- Public Parking Lot (Van Buren Street, between Madison Street and Jefferson Street) – 60 spaces
- Public Parking Lot (Pacific Street, between Logan Lane and Madison Street) – 32 spaces
- Monterey Public Library Parking Lot (Pacific Street) – 13 spaces
- Public Parking Lot (Van Buren Street and Jefferson Street) – 7 spaces
- Public Parking Lot (Franklin Street and Pierce Street) – 59 spaces
- Public Parking Lot (Calle Principal and Jefferson Street) - 19 spaces

- Calle Principal Parking Garage (Calle Principal, between Jefferson Street and Franklin Street) – 124 spaces

These public parking lots are currently underutilized during the evenings with the exception of the Calle Principal Garage, which still experiences parking demand during this time due to its proximity to the downtown core (Steffy, pers. comm., 2020).

3.12.3 Environmental Impacts and Mitigation Measures

This section describes the analysis techniques, assumptions, and results used to identify potential significant impacts of the proposed project on the transportation system. Transportation impacts are described and assessed, and mitigation measures are recommended for impacts identified as significant or potentially significant.

METHODOLOGY

Consistent with the requirements of the State CEQA Guidelines, including the recent changes flowing from SB 743, this analysis addresses transportation related environmental effects related to bicycle, pedestrian, and transit facilities; parking; VMT; hazards; emergency access; and parking. This analysis does not evaluate intersection delay and other automobile delay metrics, which are no longer to be used for evaluation of the significance of transportation impacts. Methodology for evaluating VMT is described below.

Methods for Determining VMT Threshold of Significance

State CEQA Guidelines Section 15064.3 was adopted on December 28, 2018, to provide guidance on addressing the determination of significance for transportation impacts. The Guideline requires that the analysis of transportation impacts be based on VMT instead of a congestion-based metric (such as level of service). The change in the focus of transportation analysis is the result of legislation (SB 743) and is intended to change the focus from congestion to, among other things, reduction in greenhouse gas emissions, encouraging mixed use development, and other factors. Pursuant to CEQA Guidelines Section 15064.3(c) this change in analysis is mandated to be used beginning July 1, 2020. Therefore, this EIR contains an analysis of VMT.

CEQA Guidelines Section 15064.3 subsection (b) identifies four criteria for analyzing the transportation impacts of a project. To determine how the project should be considered, each of the criteria is discussed below:

- Section 15064.3(b)(1) addresses land use projects. The proposed would include new lower field facilities and improvements to Dan Albert Stadium and would be considered a land use project. Section 15064.3(b)(1) describes that projects with specified proximity to "major" or "high quality" transit should be presumed to cause a less than significant transportation impact. The transit service in the vicinity of the project does not meet these criteria, and the presumption would not apply to this project. This section also describes that projects which would decrease VMT as compared to existing conditions should also be presumed to have a less than significant effect. The proposed project would fall within this criterion (as described below).
- Section 15064.3(b)(2) addresses transportation projects. The project does not include new permanent transportation and/or roadway projects. Therefore, this section does not apply.
- Section 15064.3(b)(3), Qualitative Analysis, states that if existing models or methods are not available to estimate the vehicle miles traveled for the project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Additionally, this section notes that, for many projects, a qualitative analysis of construction traffic may be appropriate.
- Section 15064.3(b)(4), Methodology, explains that lead agencies such as MPUSD have discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards such as CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses).

The Governor's Office of Planning and Researched prepared a Technical Advisory on Evaluating Transportation Impacts (OPR 2018) to provide guidance on conducting analyses consistent with SB 743 and the revised CEQA Guidelines. The Technical Advisory notes that projects generating or attracting fewer than 110 trips per day generally

may be assumed to cause a less-than-significant transportation impact, absent substantial evidence indicating otherwise (OPR 2018). Therefore, the VMT attributable to the project would result in a less-than-significant VMT impact if it would generate fewer than 110 trips per day.

Taking into consideration the four criteria detailed in Section 15064.3(b) for analyzing the transportation impacts and their applicability to the project, state policy, and the recommendations of the Technical Advisory, a no-net increase threshold was determined appropriate for the purpose of analyzing the combined change in VMT associated with implementation of the project. Therefore, an increase in VMT as compared to existing conditions would result in a significant effect.

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate the project impacts to transportation under CEQA are based on Appendix G of the CEQA Guidelines. Impacts to transportation would be significant if:

- conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);
- substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- result in inadequate emergency access; or
- result in inadequate parking during events that would result in a significant impact on the environment.

ISSUES NOT DISCUSSED FURTHER

Implementation of the project would not require the construction, re-design, or alteration of any public roadways; and thus, would not adversely affect any existing or planned transit, bicycle, or pedestrian facilities. Therefore, the project would not conflict with a program, plan, ordinance, or policy addressing transit, bicycle, and pedestrian facilities. This issue is not discussed further.

During project-related events, if parking were to occur along the residential streets west and south of the project site (e.g., Herrmann Drive, El Caminito, Via Del Rey), emergency vehicle access to those areas could be impeded due to limited right of way preventing a larger emergency vehicle from passing. However, on-street parking is generally prohibited in these neighborhoods. Because parking is prohibited by law in these areas, it is presumed that event attendees must obey existing parking regulations and laws during evening activities or events, or be ticketed by parking enforcement. Enforcement of parking regulations and laws is carried out by the City of Monterey Parking Enforcement Section; risk of violating laws is not a topic subject to CEQA review. The project would not develop new vehicular access points and would not inhibit existing emergency access to MHS facilities. Therefore, adequate emergency access would continue to be provided at MHS. This issue is not discussed further in this EIR.

Environmental Impacts and Mitigation Measures

Impact 3.12-1: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3, Regarding Vehicle Miles Traveled

Project construction would result in a temporary and intermittent increase in VMT. However, the project would generate fewer than 110 trips per day during construction. Therefore, construction related VMT would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b). The project-generated operational change in VMT would generally be associated with the redistribution of trips to and from the five annual home MHS football games. With implementation of the project, trips generated by these football games would originate or conclude at MHS instead of Monterey Peninsula College, where home football games are currently held. Therefore, the proposed project would result in a shift in travel patterns among local streets rather than an overall increase in trips compared to existing traffic levels. Additionally, MHS and Monterey Peninsula College are located in relatively close proximity to one another and centrally within the region to serve MHS students. Therefore, the shift in travel patterns associated with playing football games at MHS instead of Monterey Peninsula College would result in a minimal change in overall VMT as compared to existing conditions. Thus, implementation of the project would not result in a net increase in VMT. This impact would be **less than significant**.

Construction

Trips associated with project-generated construction activities could include heavy-vehicle trips to haul equipment and materials, and trips associated with the workers commuting to and from the project site. The number of haul trips and workers trips would vary based on the phase and duration of the construction activity. The exact number of truck trips, number of employees, and a variety of other construction-related activities are unknown at this time; however, due to the scale and intensity of the project it is anticipated that fewer than 110 trips per day would be generated during construction. Therefore, using OPR guidance, because the project would generate fewer than 110 trips per day this impact related to VMT would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b).

Operation

Implementation of the project would include new athletic facilities and improvements to existing facilities including new field lighting at the Dan Albert Stadium. These improvements and new facilities would provide additional space for athletic activities that currently occur on the one existing on-site athletic field. Installation of field lighting would enable night-time athletic events and practices to occur at Dan Albert Stadium. The new lighting would allow practices and games that begin in daytime hours to extend past sunset. New lighting would also allow MHS to host night-time football games at Dan Albert Stadium which are currently hosted at the Monterey Peninsula College, approximately one mile southeast of the project site.

Vehicle trips associated with existing sporting events and activities (see Table 2-1, "Dan Albert Stadium Existing Sporting Event Schedule" in Section 2.2, "Existing Facilities and Use") would not increase as a result of the project. It is reasonably expected that these events would continue to occur, and as detailed in Section 2.4, "Proposed Facilities and Use," because seating capacity has not constrained attendance in the past, it is not a limiting factor. If it is not a limiting factor, increasing total seating would not be the cause of more people attending sporting events. Therefore, the number of participants and spectators would generally remain the same and would occur in the same location. Some practices and other high school activities would be able to extend into the evening hours because of nighttime lighting. These events include boys field hockey games, boys and girls soccer games, and girls lacrosse games, which account for 20 of the 25 events (see Table 2-3, "Proposed Sporting Event Schedule" in Section 2.4, "Proposed Facilities and Use") that would be hosted in the evening with implementation of the project. However, participants in these activities would already be on campus and would not generate additional trips or VMT as a result of extending activities into the evening hours. Similarly, the MHS facilities would become available to serve existing public nighttime events; it would not influence creation of new nighttime events in the area, because nighttime venue capacity has not been a limiting factor at the current local event site, Monterey Peninsula College; instead, already-existing events would have an additional venue to choose from within the City. Thus, because the proposed project

would host evening football games that have been taking place at Monterey Peninsula College, the project would not substantially change associated VMT.

Currently, MHS plays night-time football games at Monterey Peninsula College, approximately one mile southeast of the project site. The MHS football season occurs between August and November with approximately five home games typically occurring on Fridays. The installation of lighting at Dan Albert Stadium would allow MHS to host night-time home games on-site. Game spectators generally consist of MHS students, family members of students, and students and family members of the visiting team.

Evening events hosted at Dan Albert Stadium would typically be scheduled to begin shortly after the end of regular school hours. Junior varsity games would be played first, followed by varsity games. Based on ticket sales data provided by the MPUSD, an average of 436 tickets were sold during each home game during the previous MHS football season. The number of average redistributed vehicle trips was estimated by applying citywide data from the 2018 American Community Survey prepared by the U.S. Census Bureau. The mode split based on citywide data and the number of vehicles accessing the project area during home football games is shown in Table 3.12-2.

Table 3.12-2 Football Game Modal Split and Redistributed Vehicle Trips

Mode	Mode Split (%) [1]	Number of Purchased Tickets per Mode [2]	Total Number of Vehicles
Drove Alone	81.8	357	357
Carpool – 2 persons	7.3	32	16
Carpool – 3 persons	1.4	6	2
Carpool – 4+ persons	1.0	4	1
Transit	5.3	23	0
Walk	2.8	12	0
Bicycle	.5	2	0
Total	**100**	**436**	**376**

[1] Mode split is the mix of transportation used. Mode split percentages are based on commute data from the 2018 American Community Survey. This split reflects accounts for transportation modes that would be utilized by event attendees (i.e. excludes a percentage associated with work-at-home commuters)

[2] The number of purchased tickets per mode is the number of tickets that are attributed to persons using the specified mode. It is based on average of 436 tickets sold at home football games during 2019. For example, of the 436 tickets, 81.8 percent of the tickets were purchased by drivers who drove alone, which means that 357 tickets are associated with the mode of "drove alone."

Source: U.S. Census Bureau 2019; Ascent Environmental 2020

The 436 average ticket sales per game could result in approximately 376 vehicle round trips per game. Spread over a year, this project would result in approximately 1,880 vehicle trips previously traveling to and from Monterey Peninsula College accessing the MHS site instead.

The change in VMT as a result of this shift in vehicle trips cannot be precisely predicted. These trips are intermittent and infrequent in nature (i.e., five times per year) and there is uncertainty regarding participant and spectator travel patterns and trip lengths. Additionally, these trips are not new because they already occur for games hosted at Monterey Peninsula College which is approximately 1 mile away from MHS. As a result, the project's impact on VMT would be the net change in VMT caused by redistribution of trips to MHS away from Monterey Peninsula College. OPR's Technical Advisory recognizes instances where evaluating a total change in VMT is appropriate because projects may divert existing trips. The example provided in the Technical Advisory, Appendix 1, is construction of a grocery store in a food desert that would "divert trips from more distant stores." This kind of VMT evaluation may be feasible where it can be reasonable to presume based on general land use patterns that an entire neighborhood may shift to visiting a closer grocery store for residents' essential needs. However, for the proposed project, attending football games is not essential, and it is likely that spectators come from various origins across the Monterey region, as well as outside the region for visiting team spectators. Therefore, the origins of trips to MHS football games cannot be correlated to data provided in the Technical Advisory. Quantitative modeling is thus not appropriate for evaluating

VMT impacts of the proposed project. As detailed in "Methodology," above, Section 15064.3(b)(3) of the CEQA Guidelines states that, if existing models or methods are not available to estimate the vehicle miles traveled for the project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Consequently, VMT-related impacts are analyzed qualitatively below.

The total change in VMT as a result of the project would consist of a shift in existing travel patterns based on spectators and participants traveling to MHS instead of Monterey Peninsula College for approximately five annual nighttime football games because, with the exception of hosting evening football games, the project would not generate any definitive additional vehicle trips to and from the project site and associated VMT. As detailed above, the athletic facilities at Monterey Peninsula College are approximately one mile southeast of MHS. The MHS student body resides in the City of Monterey and southern portions of the City of Seaside. Both Dan Albert Stadium and the Monterey Peninsula College facilities are centrally located relative to the area served by MHS; and thus, it is possible that trip lengths to access MHS instead of Monterey Peninsula College would not change in a meaningful way as the distance traveled by vehicles used by those attending these games would increase for some and decrease for others. Additionally, playing football games at MHS instead of Monterey Peninsula College would enable students planning on attending the games to stay on campus or in the vicinity following the conclusion of the school day. Therefore, the number of student-related vehicle trips associated with football game attendance could potentially decrease. As a result, it is anticipated the shift in travel patterns associated with playing football games at MHS instead of Monterey Peninsula College would result in a minimal change in overall VMT as compared to existing conditions and would not result in a net increase in VMT. Additionally, as described above, the project would not substantially change the number vehicle trips, it would only result in a shift in existing trips and travel patterns based on the one-mile change in location of approximately five annual nighttime football games. Therefore, using OPR guidance, because the project would generate fewer than 110 trips per day this impact related to VMT would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b).

Thus, because the project would not result in a net increase in VMT and because the project would generate fewer than 110 trips per day, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.12-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses

The hauling of heavy equipment (e.g., bulldozers, excavators, etc.) and operation of large trucks associated with project construction could result in traffic hazards along surrounding roadways with narrow right-of-way constraints. Therefore, implementation of the project could potentially substantially increase traffic hazards during the construction period. This impact would be **potentially significant**.

Implementation of the project would not require the construction, re-design, or alteration of any public roadways. Additionally, the types of vehicles accessing the project site during operational activities would be consistent with those currently using the roadway network to access MHS (i.e., passenger vehicles, buses, etc.). Therefore, operational activities would not substantially increase hazards due to a design feature of incompatible uses.

Project-related construction activities would require the hauling of heavy equipment (e.g., bulldozers, excavators, etc.) and operation of large trucks on the surrounding roadway network. Some of the roadways surrounding the project site (e.g., Larkin Street, Herrmann Drive) have limited lane width, little or no roadway shoulders, and sharp curves. Haul trips and equipment deliveries often use large trucks, which may temporarily cause hazards on these roadways during delivery and removal. For example, a large truck traveling in one direction on Larkin Street may preclude traffic from traveling in the opposite direction. Anecdotally, the number of trips in the area increases during school pickup and drop off times. Therefore, if construction related haul trips were to occur during these times of higher traffic levels, hazards could worsen. If project-related haul trips and the operation of heavy vehicles were to occur along roadways with constrained right-of-way, implementation of the project could potentially substantially increase hazards due to incompatible uses. This impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 3.12-1: Preparation and Implementation of a Temporary Traffic Control Plan

Before the beginning of project construction, the construction contractor shall prepare and implement a temporary traffic control plan (TTC). The TTC shall minimize hazards through industry-accepted traffic control practices. The TTC shall identify and utilize methods including but not limited to the following:

- identify transportation permits necessary for oversize and overweight load haul routes and follow regulations of the applicable jurisdiction for transportation of oversized and overweight loads;
- provide adequate signage and traffic flagger personnel, if needed, on Larkin Street to control and direct traffic for deliveries, if they could preclude free flow of traffic in both directions or cause a temporary traffic hazard;
- schedule deliveries of heavy equipment and construction materials during periods of minimum traffic flow, including scheduling large deliveries or oversize loads outside the school drop-off and pick-up times when school is in session;
- identify procedures for construction area evacuation in the case of an emergency declared by local authorities.

Significance after Mitigation

The implementation of Mitigation Measure 3.12-1 would require the construction contractor to prepare and implement a TTC to address safety hazards. Thus, Mitigation Measure 3.12-1 would reduce the temporary impact. Additionally, construction traffic impacts would be localized and temporary and would not introduce a permanent hazardous condition to the local roadways. For these reasons, with the implementation of Mitigation Measure 3.12-1, the project would not substantially increase hazards due to a design feature or incompatible use. Impacts would be **less than significant**.

Impact 3.12-3: Result in Inadequate Parking During Events that would Result in a Significant Impact on the Environment

During football games, the estimated parking demand would be approximately 433 vehicles, which would be greater than the 278 parking spaces provided on the MHS campus with implementation of the project. However, MPUSD office parking spaces, public parking lots, and on-street parking in the vicinity of the project site would provide adequate unrestricted parking to account for potential parking demand not able to be accommodated by on-site MHS parking. The MPUSD offices that are adjacent to MHS and near Dan Albert Stadium would provide approximately 60 additional parking spaces to accommodate project-generated increases in parking demand during evening events. Over 300 off-street public parking spaces are located within one half mile of the project site. Therefore, because existing parking supply would be available to satisfy the parking demand associated with project-related events, the project would not result in inadequate parking during events and a significant impact on the environment would occur. This impact would be **less than significant**.

During the notice of preparation comment period, concerns were raised that the addition of lighting at Dan Albert Stadium and the hosting of MHS events in the evenings would result in issues related to parking on nearby residential streets. It is important to note that adequacy of parking alone is not within the purview of CEQA impacts, because it is not an effect on the environment; it has been excluded from CEQA review by state law (i.e., SB 743, Statutes of 2013). However, secondary impacts on the environment that result from a parking deficit are within the scope of CEQA.

MHS currently has five parking areas and a total of 375 parking spaces (including approximately 100 parking spaces associated with the informal dirt overflow lot). The existing overflow parking lot is used to provide additional on-site parking during MHS events or when all other on-site MHS parking lots are at capacity. Typically, events requiring the use of this overflow parking lot occur during school hours when all other MHS parking lots are occupied by students and faculty. The project would include replacing the existing informal dirt overflow parking lot with athletic facilities including a softball field and athletic training facilities, thus reducing the available on-site MHS parking capacity to

275 parking spaces. Additionally, as part of the project development, the parking lot directly to the southwest of Dan Albert Stadium would be restriped to provide up to 19 parking spaces. The existing capacity of this specific parking lot is 16 spaces. Therefore, the project could add up to three additional spaces; and the total number of on-site MHS parking spaces with implementation of the project would be 278 spaces.

As described in Section 2.4, "Proposed Facilities and Use," the proposed project would allow for games and sports activities to occur during the evening. MHS proposes to expand the timing of field hockey, soccer, and track and field by allowing evening-hour use. Additionally, implementation of the project would allow for evening football games to occur on-site and would increase the seating capacity at Dan Albert Stadium. Of the new evening games and sport activities associated with implementation of the project, football games would generate the greatest number of attendees. Therefore, project-generated parking demand would peak during football games and the parking impact analysis focuses on this highest-impact parking demand scenario to avoid the risk of understating the impact.

The proposed project's increase in seating capacity at Dan Albert Stadium would not be a reason to expect an increase in attendance of football games above current levels, because current attendance levels are less than half of existing stadium capacity. That is, current games are not selling out, so there is not demand above current capacity at the Dan Albert Stadium, or stated differently, data indicate that seating capacity is not a limiting factor on game attendance. Therefore, for the purposes of this analysis, it is reasonably expected that ticket sales and attendance would not substantially change for football home games played at Dan Albert Stadium with the implementation of the proposed project.

To provide a conservative parking demand scenario (i.e., to avoid the risk of understating an impact), the home football game with the greatest number of tickets sold over the last year was used for the parking analysis. Based on ticket sales from the 2019 football season, at the most well attended home football game, a total of 502 tickets were sold.

To estimate the potential number of vehicles used to travel to and from individual football games, transportation mode utilization data from the 2018 American Community Survey prepared by the U.S. Census Bureau was used. It should be noted that these values are considered conservative considering that not all students attending games would be licensed to drive, the school is in close proximity to many student homes which would enable them to walk instead of drive, and the hosting of events on the MHS campus could reduce the need to drive for students and faculty traveling directly from campus to the football game. The mode split based on citywide data and the number of vehicles requiring parking on site is shown in Table 3.12-3.

Table 3.12-3 Football Game Modal Split and Parking Demand

Mode	Mode Split (%) [1]	Number of Purchased Tickets per Mode [2]	Total Number of Vehicles
Drove Alone	81.8	411	411
Carpool – 2 persons	7.3	37	19
Carpool – 3 persons	1.4	7	2
Carpool – 4+ persons	1.0	5	1
Transit	5.3	25	0
Walk	2.8	14	0
Bicycle	.5	3	0
Total	**100**	**502**	**433**

[1] Mode split percentages based on commute data from the 2018 American Community Survey. This split reflects accounts for transportation modes that would be utilized by event attendees (i.e. excludes a percentage associated with work-at-home commuters)

[2] Based on 502 tickets sold at most well attended home football game of 2019.

Source: U.S. Census Bureau 2019; Ascent Environmental 2020

As shown above, the home football game with the greatest attendance would generate an approximate parking demand of 433 parking spaces. Following the development of the project, the MHS would have approximately 278 total on-site parking spaces.

The project site is located adjacent to, and immediately north of the MPUSD office, which has an existing surface parking lot with approximately 60 parking spaces. The MPUSD office closes at 5:00 p.m. do its parking capacity would be reasonably anticipated to be available during home football games. Therefore, including use of the MPUSD office parking lot, the available parking supply for home football games would be approximately 338 parking spaces, which would be 95 spaces less than the estimated parking demand for the highest-attendance football games.

As detailed above, MHS is located in close proximity to multiple City of Monterey public parking lots. The City owns and operates three public surface parking lots located less than one quarter mile from Dan Albert Stadium, within a reasonable walking distance to MHS. The location and capacity of these nearby public parking lots are as follows:

- Public Parking Lot (Van Buren Street, between Madison Street and Jefferson Street) – 60 spaces
- Public Parking Lot (Pacific Street, between Logan Lane and Madison Street) – 32 spaces
- Monterey Public Library Parking Lot (Pacific Street) – 13 spaces

Additionally, the following public parking lots are less than one half mile from Dan Albert Stadium:

- Public Parking Lot (Van Buren Street and Jefferson Street) – 7 spaces
- Public Parking Lot (Franklin Street and Pierce Street) – 59 spaces
- Public Parking Lot (Calle Principal and Jefferson Street) - 19 spaces
- Calle Principal Parking Garage (Calle Principal, between Jefferson Street and Franklin Street) – 124 spaces

Therefore, public parking lots would provide up to 105 additional parking spaces within one quarter mile, and up to 314 additional parking spaces within one half mile of the project site to accommodate the estimated parking demand that would not be served by parking lots at MHS and the MPUSD office during highest attendance football games, i.e., 95 spaces. These public parking lots located in the downtown area are generally time restricted and/or require payment or a permit to park. However, enforcement of these time restrictions and payment/permit requirements occurs between the hours of 9:00 a.m. and 6:00 p.m.; and thus, parking in these lots is free and unrestricted after 6:00 p.m. on weekdays.

As noted, at up to one half mile, these lots are within a reasonable walking distance to the Dan Albert Stadium. They are generally located in the downtown Monterey area, west and northwest of the project site. From this area, there are pedestrian facilities, such as sidewalks, that provide for safe pedestrian travel to Larkin Street, which is the closest point of access to Dan Albert Stadium. On Larkin Street, there are sidewalks to and across the Larkin Street Bridge. Past the Larkin Street Bridge, there is a sidewalk on the southern side of the road leading directly to the MHS school grounds and an unpaved path on the northern shoulder next to the roadway for pedestrians to use. Therefore, Larkin Street provides a continuous pedestrian connection and access to MHS. During MHS events the number of pedestrians using the pedestrian facilities to access the project site would increase. However, as detailed above, there are adequate pedestrian facilities that provide continuous and direct access between offsite parking locations and the project site. Furthermore, as discussed above, in the 10-year period of January 1, 2010 through December 31, 2019, there were 4 pedestrian collisions involving high school aged youth (13 to 18 years old) near Monterey High School, indicating relatively safe conditions. As a result, no new safety concerns would arise as a result of people using City parking structures to attend MHS football games.

On-street parking is generally prohibited in the neighborhoods to the west and south of the project site. Because parking is prohibited by law in these areas, it is presumed that event attendees would obey existing parking regulations and laws. In the case that they do not, the City of Monterey enforces parking regulations. Therefore, illegal parking is considered an enforcement issue rather than one associated with the proposed project. Legal on-street parking is available along streets adjacent, and in close proximity to the project site including, but not limited to Martin Street, Pacific Street, Van Buren Street, and El Dorado Street. On-street parking in the project vicinity is unrestricted after 6:00 p.m. along Pacific Street and Martin Street, and along most streets in the downtown core. Therefore, some of the anticipated on-site parking shortfall for football games would likely be accommodated by existing on-street parking spaces in the vicinity of the project site.

Therefore, through a combination of MHS on-site parking (278 parking spaces), the MPUSD offices surface parking lot (60 parking spaces), and nearby public parking lots (314 parking spaces); existing parking facilities in the vicinity of the project site would provide sufficient off-street parking supply (i.e., 652 spaces) to satisfy the conservatively estimated parking demand during highest attendance home football games (i.e., 433 parking spaces) at Dan Albert Stadium. Also, existing nearby on-street parking would be available to contribute additional parking supply.

Therefore, as detailed above, existing parking facilities would provide sufficient parking supply to accommodate the parking demand associated with events at the project site. As a result, there would not be substantial, secondary environmental impacts related to parking adequacy. For these reasons, the project would not result in inadequate parking capacity during event. As a result, there would be no significant environmental impacts related to parking. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.13 UTILITIES AND SERVICE SYSTEMS

This section evaluates the availability of existing utility and infrastructure systems (water, wastewater, stormwater, electricity, and natural gas) to serve the proposed project and the impact of the project on these systems. The analysis is based on documents obtained from the City of Monterey, California American Water (Cal Am), Monterey One Water, Monterey City Disposal Service (MCDS), Monterey Bay Community Choice Energy (MBCCE), and Pacific Gas and Electric Company (PG&E).

3.13.1 Regulatory Setting

DOMESTIC WATER

State

Urban Water Management Plan

In 1983, the California Legislature enacted the Urban Water Management Planning Act (UWMPA) (California Water Code Sections 10610–10656). The UWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that provides more than 3,000 acre feet of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. This effort includes the adoption of an Urban Water Management Plan (UWMP), The City of Monterey is served water by Cal Am. Cal Am has consistently provided less than 3,000 acre feet per year to the Monterey County service area since the year 2010 and does not have an UWMP (Monterey County Water Resources Agency 2006).

Local

City of Monterey Building Code

The City of Monterey Building Code adopts and incorporates by reference the 2019 California Green Building Standards Code and Appendices G and I. The California Green Building Standards Code (CALGreen) was developed in 2007 to meet the mandates of Assembly Bill (AB) 32. CALGreen applies to nonresidential structures that include, but are not limited to, new buildings or portions of new buildings, additions and alterations, and all occupancies where no other state agency has the authority to adopt green building standards applicable to those occupancies. It contains water efficiency and conservation standards.

WASTEWATER AND STORMWATER

Federal

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established under the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the US. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint sources (nonpoint source discharges are further discussed in Section 4.10, "Hydrology and Water Quality"). NPDES permits cover various industrial and municipal discharges, including discharges from storm sewer systems in larger cities, stormwater generated by industrial activity, runoff from construction sites disturbing more than 1 acre, and mining operations. Point source dischargers must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). So-called "indirect" point source dischargers are not required to obtain NPDES permits. "Indirect" dischargers send their wastewater into a public sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering any surface water. Wastewater treatment

for the City of Monterey occurs at the Regional Wastewater Treatment Plant (WWTP) and the Advanced Water Purification Facility (AWPF), both of which are operated by Monterey One Water. On December 6, 2019, the Central Coast RWQCB issued WQ Order No. R3-2018-0017, NPDES NO. CA0048551.

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Stormwater is runoff from rain or snow melt that runs off surfaces such as rooftops, paved streets, highways or parking lots and can carry with it pollutants such as oil, pesticides, herbicides, sediment, trash, bacteria and metals. The runoff can then drain directly into a local stream, lake or bay. Often, the runoff drains into storm drains which eventually drain untreated into a local waterbody. The County of Monterey, with the Monterey Peninsula cities of Carmel by the Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City and Seaside, is a participating member of the Monterey Regional Storm Water Management Program (MRSWMP). Participating members collaborate on projects and other Permit-related activities to satisfy a number of their individual Phase II Small MS4 General Permit requirements. The County of Monterey is a Designated Party in the Phase II Municipal Separate Storm Sewer System General Permit, Water Quality Order No, 2013-0001-DWQ NPDES General Permit CAS000004, Waste Discharge Requirements for Storm Water Discharges from MS4s (General Permit) adopted by the State Water Resources Control Board on February 5, 2013 (County of Monterey 2020).

State

Waste Discharge Requirements

On May 2, 2006, the State Water Resources (SWRCB) enacted Order No. 2006-0003-DWQ Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. These WDRs were subsequently amended with an updated Monitoring and Reporting Program under Order No. WQ 2013-0058-EXEC. Collectively, the 2006 and 2013 regulations are referred to herein as WDRs. Per the requirements of the WDRs the City has prepared a Sewer System Management Plan (SSMP), certified in April 2018 and Revised in May 2019, that provides guide to properly manage, operate, and maintain all parts of its sanitary sewer collection and conveyance system to help reduce and prevent sanitary sewer overflows (SSOs), as well as mitigate any SSOs that may occur (City of Monterey 2019).

Local

Monterey Peninsula Water Management District

Monterey Peninsula Water Management District's Rule 142.1 outlines water efficient landscape requirements to minimize water use, eliminate water waste, and reduce storm water runoff through landscape planning choices, design, and irrigation.

City of Monterey Storm Water Ordinance

The City of Monterey Storm Water Ordinance is found in Chapter 31.5 of the City Code. Article 2- Urban Storm Water Quality Management and Discharge Control of Chapter 3.15 provides discharge prohibitions; establishes regulations and requirements for discharge; and methods for inspections, monitoring, and enforcement. In addition, Article 2 also contains requirements for BMPs activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, including construction sites and new developments or redevelopments.

City of Monterey Building Code

The City of Monterey Building Code adopts and incorporates by reference the 2019 California Green Building Standards Code and Appendices G and I. The California Green Building Standards Code (CALGreen) was developed in 2007 to meet the mandates of Assembly Bill (AB) 32. CALGreen applies to nonresidential structures that include, but are not limited to, new buildings or portions of new buildings, additions and alterations, and all occupancies where no other state agency has the authority to adopt green building standards applicable to those occupancies. It contains water efficiency and conservation standards.

SOLID WASTE

Federal

No federal plans, policies, regulations, or laws are applicable to solid waste for the Project.

State

California Integrated Waste Management Act

The California Integrated Waste Management Act (IWMA), or AB 939, Established an integrated waste management hierarchy to guide the Board and local agencies in implementation, in order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal. The IWMA requires that local jurisdictions implement a 50 percent diversion rate for solid waste sent to landfills.

Local

Monterey County Local Enforcement Agency

Solid Waste Management Services is designated as the Local Enforcement Agency (LEA) in Monterey County and is responsible for permitting, ensuring compliance with regulations, and inspecting facilities that handle solid waste, such as open and closed landfills, transfer stations, and compost facilities.

City of Monterey Building Code

The City of Monterey Building Code adopts and incorporates by reference the 2019 California Green Building Standards Code and Appendices G and I. The California Green Building Standards Code (CALGreen) was developed in 2007 to meet the mandates of Assembly Bill (AB) 32. CALGreen applies to nonresidential structures that include, but are not limited to, new buildings or portions of new buildings, additions and alterations, and all occupancies where no other state agency has the authority to adopt green building standards applicable to those occupancies. It contains material conservation and resource efficiency standards.

ENERGY

Federal

There are no federal plans, policies, regulations, or laws applicable to capacity to generate and deliver energy.

State

California Environmental Quality Act

Appendix F of the State CEQA Guidelines sets forth goals for energy conservation, including decreasing per capita energy consumption and reliance on fossil fuels and increasing reliance on renewable energy sources. CEQA requires EIRs to describe potential energy impacts of projects, with an emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code [PRC] Section 21100[b][3]). These items are addressed in Section 3.5, Energy.

California Energy Commission Integrated Policy Report

The California Energy Commission (CEC) prepares an integrated policy report every two years that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. Improved energy efficiency reduces overall capacity needs for electricity, natural gas, and transportation fuel. Energy efficiency is one of the key components of the state's strategy to reduce energy usage and consequently greenhouse gas emissions (GHGs). Efficiency achieved through building codes, appliance standards, and ratepayer-funded programs has had a positive impact on energy usage reduction and GHG emissions in recent years (CEC 2017).

2008 Energy Efficiency Strategic Plan

The California Public Utilities Commission (CPUC) 2008 Energy Efficiency Strategic Plan established goals of having all new commercial construction ZNE by 2030 (CPUC 2020).

California Code of Regulations, Energy Efficiency Standards

Energy consumption in new buildings in California is regulated by State Building Energy Efficiency Standards (CALGreen) contained in the California Code of Regulations, Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The 2016 Building Energy Efficiency Standards have improved efficiency requirements from previous codes and the updated standards are expected to result in a statewide consumption reduction (CEC 2015).

Local

City of Monterey Building Code

The City of Monterey Building Code adopts and incorporates by reference the 2019 California Green Building Standards Code and Appendices G and I. The California Green Building Standards Code (CALGreen) was developed in 2007 to meet the mandates of Assembly Bill (AB) 32. CALGreen applies to nonresidential structures that include, but are not limited to, new buildings or portions of new buildings, additions and alterations, and all occupancies where no other state agency has the authority to adopt green building standards applicable to those occupancies. It contains energy efficiency standards.

3.13.2 Environmental Setting

WATER SUPPLY

The City of Monterey is supplied water by Cal Am, which obtains water from surface water and from wells in the Carmel Valley aquifer and the Salinas Valley Groundwater Basin–Seaside coastal groundwater sub-basin (City of Monterey 2014). Cal Am was also ordered by the SWRB to implement a water conservation plan to reduce the diversion rate from the Carmel Valley aquifer by 15 percent by 1995 and 5 percent for each following year (City of Monterey 2014). In the year 2003, water availability was estimated at 15,285-acre feet. The 5-year average water use for residents of the Monterey Peninsula declined from 13,290 acre-feet per year (2007 through 2011) to an average of 10,966 acre-feet per year (2013 through 2016) and continues to decline. The 2017 water use demand estimates ranged from 9,675 acre-feet per year to 15,000 acre-feet per year. At this time, there is a deficit for water supply in the Cal Am service area.

In September 2018, the CPUC determined that Cal Am's overall future water demand will be approximately 14,000 acre-feet per year with a projection of 12,000 acre-feet per year for existing customers and 2,000 acre-feet per year attributed to future expanded customer demand. In April 2012, Cal Am submitted an application to the CPUC for the Monterey Peninsula Water Supply Project. The Monterey Peninsula Water Supply Project consists of three different pathways to increase water reliability for Cal Am water supply. The Monterey Peninsula Water Supply Project. It is estimated to supply an additional 11,052 acre-feet per year of water starting in 2022 (Stoldt 2019).

Current water usage onsite is minimal. Additional water usage would likely be attributed to new restroom facilities as well as expanded activities (i.e., nighttime games and practices, as well as community events).

WASTEWATER AND STORMWATER

The City sewer infrastructure consists of 99 miles of gravity sewer mains and 1.5 miles of force mains, 7 lift stations, and over 2,300 manholes, and structures located in City easements on federally owned property at the U.S. Naval Support Activity Monterey (NSA Monterey) and the U.S. Army Garrison Presidio of Monterey (POM). The POM sanitary sewer collection and conveyance system is owned by the City of Monterey (City of Monterey 2019).

Wastewater Treatment and Disposal

In the City of Monterey, wastewater collection and treatment authorities are divided between the City and the Monterey One. The existing sewer collection system falls under the jurisdiction of the City of Monterey and is comprised of approximately 102 miles of sewer lines, five sewer lift stations, and other associated structures including manholes and ancillary facilities. A sewer surcharge fee is added to the MRWCPA monthly fees for wastewater treatment and allows for maintenance and replacement of sewer pipes and pumps.

The regional wastewater treatment facility, Monterey One Water serves Del Rey Oaks, Monterey, Pacific Grove, Salinas, Sand City, Seaside, Boronda, Castroville, Moss Landing, Fort Ord, Monterey County, and Marina, and is located to the southwest of the City of Marina and is operated by the MRWPCA. Wastewater entering the Monterey One Water facility receives primary and secondary treatment and allows for approximately 60 percent of all intake water to be recycled for reuse. During the winter, when agricultural irrigation water is not needed, secondarily treated wastewater is safely discharged two miles into the Monterey Bay through a 60-inch diameter outfall pipe. The treated water meets and exceeds all state discharge requirements. The agency provides wastewater treatment services to over 250,000 people; processes over 18.5 million gallons of wastewater each day; recycles approximately 4 billion gallons of water annually for crop irrigation; and protects public health, water quality, and the environment by meeting or exceeding numerous regulatory requirements (Monterey One Water 2017).

ENERGY

Electricity

The City of Monterey is provided energy by two entities: Pacific Gas & Electric (PG&E) and Monterey Bay Community Power (MBCP). PG&E is a regulated investor-owned utility that provides natural gas and electric service to approximately 16 million people throughout a 70,000-square mile service area in California, including the City of Monterey. PG&E generates or buys electricity from hydroelectric, nuclear, renewable, natural gas, and coal facilities. In 2018, PG&E's power mix was comprised of 39 percent renewables (i.e., biomass and waste, geothermal, small hydroelectric, solar, and wind), 35 percent nuclear, 13 percent large hydroelectric, and 15 percent natural gas and other fuels (PG&E 2019).

The MBCP, also known as the Community Choice Energy model, is a new energy agency that consists of local governments and provides an alternative to PG&E power for all ratepayers in Santa Cruz, San Benito, and Monterey Counties as well as portions of San Luis Obispo County. MBCP began serving electricity in March 2018. MBCP's energy is procured from carbon-free sources in California and on the western grid such as solar, wind, biomass and hydroelectric power. MBCP's default service offering, MBchoice, is comprised of 34 percent renewable energy resources and 66 percent large hydroelectric. MBprime is a 100 percent renewable, generated exclusively from solar and wind (MBCP 2019). MHS obtains its electricity from MBCP.

WASTE

The Monterey Regional Waste Management District operates the Monterey Peninsula Landfill (MPL) and Materials Recovery Facility (MRF). The District covers a total of 853 square miles, including Monterey. The MPL and MRF property includes the sanitary landfill site, resource recovery facilities, and Community Franchise Collection Facility. Landfill and waste-reduction and diversion components of the District's operations have adequate capacity to meet existing and likely future service needs within existing boundaries and in areas within the District's Sphere of Influence, in the event of annexations or new contracts for service. The MPL has a design capacity of approximately 84 million cubic yards. In 2015 the remaining landfill waste capacity was estimated at approximately 72 million cubic yards, or approximately 86 percent of the site's capacity remains available. The District estimates its landfill to have a remaining site life of approximately 150 years. The estimated site life has been increasing in recent years, rather than decreasing, as the District has been implementing waste reduction technologies and site improvements (LAFCO 2015).

3.13.3 Environmental Impacts and Mitigation Measures

ANALYSIS METHODOLOGY

Water Supply Assessment

CEQA Guidelines Section 15155 requires preparation of a water supply assessment (WSA) when a project is of sufficient size to be defined as a "water-demand project." A "water-demand project" is a large-scale construction project, such as a residential development of more than 500 dwelling units; a shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; or a commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space. The project does not meet the criteria defined as a water-demand project and does require the preparation of a WSA.

THRESHOLDS OF SIGNIFICANCE

A utilities and service systems impact is considered significant if implementation of the Project would do any of the following:

- require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects
- have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years
- result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments
- generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure
- negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals; and/or
- comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.13-1: Require Relocation or Construction of New or Expanded Water or Wastewater Treatment or Storm Water Drainage, Electric Power, or Natural Gas Facilities

Implementation of the project would shift the location of current water use but would not result in a net increase in regional or local groundwater, wastewater treatment demand, or natural gas demand. The project would connect to existing utilities and would not require the construction of expanded utilities. There would be **no impact**.

Construction

Wastewater Treatment

As discussed in Impact 3.9-1, construction-related activities could potentially increase runoff events and degrade surface water or ground water quality. Potential degradation of water and ground water quality would be temporary in nature, approximately 11 months, and would be limited to the construction stage of the project. During construction the District would adhere to NDPES Permit requirements; implement BMPs to minimize runoff; adhere to the City's Stormwater Ordinance; and prepare a Stormwater Pollution Prevention Plan (SWPPP), which would reduce stormwater runoff and subsequently decrease capacity needs for wastewater treatment. There would not be a substantial increased demand for wastewater treatment.

Electricity

Construction activities would be limited to daytime hours between 7:00 am to 7:00 pm weekdays and 8:00 am to 6:00 pm on Saturdays and 10:00 am to 5:00 pm Sundays and would not require additional electricity for illumination of the project site. Gasoline and diesel fuel would primarily be used to fuel construction equipment. Minor construction equipment, such as handheld electric power tools, would represent an extremely small energy demand that would occur over a short period of time, approximately 11 months. There would not be a substantial increased demand for electrical power.

Natural Gas

Project construction would utilize typical construction equipment (e.g., scraper/blade, backhoes) powered by gasoline or diesel fuel and would not require the use of natural gas. No new infrastructure would be needed.

Operation

Wastewater Treatment

The project would generate additional wastewater on the MHS campus due to operation of additional restrooms in the proposed weight room building as well as expanded activities (i.e., nighttime games and practices, as well as community events). As explained in Impact 3.9-3, project operations would result in a very slight increase in runoff from several small areas of impervious pavement. Catch basins and other BMPs incorporated throughout the project site would reduce overall amount of wastewater produced and would improve wastewater quality through on-site pretreatment. The slight increase in wastewater production attributed to project operations would not exceed the capacity of existing stormwater drainage systems nor would it contribute a substantial source of polluted runoff that would require wastewater treatment.

As explained under Impact 3.9-2, water demand associated with the proposed project, specifically the three bathrooms in the proposed weight room building, is minor and would merely relocate existing use of such facilities. As a result, the wastewater generated would also be minor and merely shifted from elsewhere within the community. Overall, the generation of wastewater would not increase. The project would be adequately served by existing stormwater drainage and wastewater treatment capabilities.

Electricity

Utility connections for electricity for project components such as the stadium lighting, the scoreboard, and weight room electrical components would be installed onsite with connections to existing infrastructure that currently serve the project site. No new off-site utility facilities or utility relocations would be required to serve the project. Electrical demand currently associated with usage of the Monterey Peninsula College for MHS football games would instead be utilized by the new project facilities. The continuance of practices into evening hours and the use of the weight room would require a minimal amount of additional electricity, but it would not require new generation or new transmission infrastructure. There would not be a substantial increased demand for electrical power.

Natural Gas

Hot water supplied to the team room restroom sinks would be heated using existing natural gas infrastructure and would not substantially increase natural gas demands. No new infrastructure would be needed.

Summary

The project would not require expansion, construction, or relocation of utilities which would cause significant environmental effects. There would be **no impact**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.13-2: Result in a Substantial Impact on Water Supply Availability for the Project During Normal, Dry and Multiple Dry Years

Implementation of the Project would shift the location of current water use but would not result in a net increase in regional or local demand. The Project would be adequately served by Cal Am water supplies. Impacts would be **less than significant**.

Construction

Project construction would not result in a substantial increase in water demand to support construction activities. Water demand is expected to be limited primarily to watering for grading of the lower field. Construction crews would include up to 150 personnel and would use temporary restroom facilities that would not connect to or utilize water supplies. Project construction would not result in a substantial increase in overall water demand for MHS that could not be met by Cal Am water supplies during normal dry, and multiple years.

Operation

The proposed project would slightly increase MHS's demand for water during operation, but the project would not increase the local or regional water demand. As discussed for Impact 3.9-2, although there would be new uses at MHS, for the most part, these uses would merely move existing consumption of water to MHS from other locations in the area, such as homes and businesses where people would otherwise be consuming water. A minor amount of water would be needed to maintain the water-efficient landscaping. Water is supplied by Cal Am, which obtains water from surface water, wells in the Carmel Valley alluvial aquifer, and the Seaside coastal groundwater sub-basin (City of Monterey 2014). Cal Am obtains its water from groundwater sources from the Santa Margarita, Paso Robles, and Carmel Alluvial aquifers as well as surface water from the Sand City Desalination Plant (Cal Am 2019). The proposed project would not result in a substantial increase in overall water demand for MHS that could not be met by Cal Am water supplies during normal dry, and multiple years.

Summary

Project construction and operation would result in a slight increase in water demand. The project would not result in a substantial increase in overall water demand that would impact on water supply availability for the project during normal, dry and multiple dry years. Therefore, the impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.13-3: Result in Generation of Solid Waste That May Impair Waste Services, Attainment of Solid Waste Reduction Goals, or Exceed State or Local Standards or Capacity of Infrastructure

Project construction would result in a short-term generation of solid waste over the course of the eleven-month construction period. Construction may slightly increase solid waste production. Construction activities are subject to waste diversion requirements of AB 939, AB 341, and CALGreen Sections 4.408 and 5.408. Project operations would shift the location of current solid waste disposal but would not result in a net increase in solid waste generated locally or regionally. The Project would be adequately served by existing waste services and would not interfere with waste reduction goals or exceed state or local standards or capacity of infrastructure. Impacts would be **less than significant**.

Construction

Construction-related activities would result in a short-term generation of solid waste over the course of the eleven-month construction period. Solid waste associated with construction would likely include materials from the existing temporary press box, dirt, packaging and shipping materials for the new lights, new bleachers, and construction materials. Project construction would adhere to state mandates for solid waste diversion. For example, the project would adhere to CALGreen Sections 4.408 and 5.408 which require the diversion of at least 65 percent of the

construction waste generated during most new construction projects. Solid waste generated by the project would be served by the MPL. The MPL has a design capacity of approximately 84 million cubic yards. In 2015 the remaining landfill waste capacity was estimated at approximately 72 million cubic yards, or approximately 86 percent of the site's capacity remains available (LAFCO 2015). Project construction would not generate solid waste that would exceed the remaining capacity of the MPL.

Operation

Project operations would generate minimal amounts of solid waste. Waste generated during sporting events, such as plastic bottles and food wrappers, would not be a new source of waste but rather would redistribute where waste is deposited in the service area. Specifically, waste that was previously discarded during football games at the Monterey Peninsula College—which is also served by the Monterey Regional Waste Management District— would instead be discarded at MHS during future football games. Practices that continue from daytime into evening hours would likely not generate additional waste because they are merely extended and not a new event on the campus. Rentals of the facilities for public events are not expected to increase the number of events in the area, but events would have more venues to choose from. Therefore, these would not generate more waste but would be expected to merely shift waste generation from another location. Furthermore, it is estimated that the MPL and MRF has capacity to accommodate future service needs for the next approximately 150 years (LAFCO 2015).

Summary

Project construction and operation would generate small amounts of solid waste. Construction activities would adhere to state mandates which would divert a majority of construction waste from the MPL. Project operation would redistribute where waste was generated in the service area but would not increase the amount of waste generated. The MPL and MRF have adequate capacity and capabilities to serve the project. The project would not impair waste services, attainment of solid waste reduction goals, or exceed State or local standards or capacity of infrastructure. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4 CUMULATIVE IMPACTS

4.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This draft environmental impact report (Draft EIR) provides an analysis of cumulative impacts of the proposed project taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the California Environmental Quality Act Guidelines (State CEQA Guidelines). The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the incremental contribution to any such cumulatively significant impacts by the project would be "cumulatively considerable" (and thus significant). (See State CEQA Guidelines Sections 15130[a]–[b], Section 15355[b], Section 15064[h], and Section 15065[c]; and Communities for a Better Environment v. California Resources Agency [2002] 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create a broad context in which to assess cumulative impacts, viewed on a geographic scale beyond the project site itself, and then to determine whether the project's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., "cumulatively considerable").

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (State CEQA Guidelines Section 15355[b]).

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this Draft EIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, the following:

> [t]he 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 identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

4.2 METHODS

CEQA Guidelines Section 15130(b)(1) outlines two approaches for characterizing the cumulative impacts that may occur in the vicinity of a proposed project:

- Project list: A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, projects outside the control of the agency.
- Summary of projections: A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to a cumulative effect. This summary can be supplemented with additional information, including a regional modeling program.

This EIR uses both approaches, depending on which one is more appropriate for the resource area and impact being analyzed. Similarly, the geographic scope of the cumulative analysis also varies by resource because the area where a cumulative effect can occur varies by resource. For example, noise impacts tend to be localized, while air quality impacts can be more widespread.

Projects considered under the project list approach include past projects, projects under construction and approved, and pending projects that are anticipated to be either under construction or operational by the time of completion of the proposed project. A list of projects and a description of those projects considered is included in Table 6-1. The list of projects was generated through review of resources such as the City of Monterey's list of development projects, the State Clearinghouse CEQAnet database for projects in the City of Monterey, and the City of Monterey's Neighborhood and Community Improvement Program. For resource area analyses using the project list approach, projects considered are narrowed as appropriate by the geographic scope of the cumulative impact analysis.

Note that several projects in Table 4-1 have been excluded from the resource specific analyses. The reasons for their exclusion is as follows:

- **Van Buren Senior Housing and Cooper Molera Adobe:** These past projects were both completed in 2018. As a result, they are part of the project baseline and do not have the potential for overlapping impacts in the future. Additionally, any construction related impacts associated with these projects have not occurred for over a year, eliminating the potential for sequential cumulative impacts to occur in tandem with the proposed project.
- **Via Paraiso Tennis Court Striping, Via Paraiso Park Expression Swings, San Bernarbe Curve Phase 1, Franklin and Pacific Corridor Traffic Signal Adaptive Systems, Jacks Park Infield Turf:** These projects were nominated as part of the City's Neighborhood and Community Improvement Program for fiscal year 2020-2021. As a result, it is uncertain whether and when these projects would be undertaken, so they are not yet reasonably foreseeable future projects. Additionally, these projects are all minimal in scope and in several cases are in an area where impacts from the proposed project would not occur. For example, the proposed project would not affect Via Paraiso Park, and work proposed at Via Paraiso Park would occur entirely within the park boundaries.

Table 4-1 Cumulative Project List

Project Name (Lead Agency)	Description	Location	Status
Included in Analysis			
Monterey High School Parking Improvements, Design Development Project (MPUSD)	In February 2020, the District approved a contract with C2G/Civil Consultants Group to review and analyze parking at the Monterey High School campus and adjacent District Office area. C2G was tasked with focusing on expansion of parking in front of the District Office, the parking lot improvements for student parking by the Music Building, conversion of the Athletic Field on the south side of campus to parking, and upgrades to parking along the north side of campus. Activities could include pavement removal, tree removal, pavement design, grading and drainage improvements, landscaping, and retaining walls.	Monterey High School campus	A schematic analysis was completed and Design Development Plans and Construction Documents have been submitted to DSA. It is uncertain when construction may begin or if the design may change.
Monterey High School Science Innovation Center (MPUSD)	The Science Innovation Center will be located northwest and adjacent to the Dan Albert Stadium. The project will be almost 38,000 square feet and provide classrooms, an outdoor plaza, and science labs.	Monterey High School campus	Under construction beginning in June 2019, construction expected to be completed in January 2021.
El Caminito Del Norte Streetlight (City of Monterey)	This project would involve installing one overhead streetlight on an existing joint-power pole.	El Caminito Del Norte	The project is part of the approved Neighborhood Community Improvement Plan for fiscal year 2019-2020.
Library Parking Lot Streetlight (City of Monterey)	This project involves adding a streetlight to a power pole in front of the public parking lot at the library on Pacific Street	Pacific and Madison Street	The project is part of the approved Neighborhood Community Improvement Plan for fiscal year 2019-2020.

Project Name (Lead Agency)	Description	Location	Status
Excluded from Analysis			
Van Buren Senior Housing	This project contains 19 residential units. It required removal of three existing buildings and 26 parking spaces. Affordable housing for seniors was then constructed on the site.	637 Van Buren Street	The project was opened in November 2018.
Cooper Molera Adobe	This includes a museum, restaurant, baker, and meeting space.	502 Munras Avenue	The project was completed in 2018.
Via Paraiso Tennis Court Striping	This project includes removing non-tennis court lines from one of the two existing tennis courts and providing unrestricted and full-time access to a dedicated tennis court.	Via Paraiso Park	This project was nominated as an NCIP project for the 2020-2021 fiscal year.
Via Paraiso Park Expression Swings	This project includes installing an Expression Swing at Via Paraiso Park near the tire swing.	Via Paraiso Park	This project was nominated as an NCIP project for the 2020-2021 fiscal year.
San Bernarbe Curve Phase 1	This project will widen the road and install curb and retaining walls on properties with high slope road margins.	San Bernabe Drive	This project was nominated as an NCIP project for the 2020-2021 fiscal year.
Franklin and Pacific Corridor Traffic Signal Adaptive Systems	These projects would involve installing a traffic signal adaptive system on the Pacific Street and Franklin Street corridor.	Pacific Street and Franklin Street Corridor	This project was nominated as an NCIP project for the 2020-2021 fiscal year.
Jacks Park Infield Turf	This project would involve installation of artificial turn on the infield area.	Jacks Park	This project was nominated as an NCIP project for the 2020-2021 fiscal year.

Sources: MPUSD 2020a, OPR 2020, City of Monterey 2018, City of Monterey 2019a, City of Monterey 2019b, City of Monterey 2020a, City of Monterey 2020b, Schmalz 2018, Herrera 2019

4.3 RESOURCE AREAS AND CUMULATIVE IMPACTS

4.3.1 Resource Areas Not Discussed

The proposed project would not impact several resources areas. In instances where the analysis in Chapter 3 determines that the proposed project would result in no impact, the associated significance criterion is not considered in the cumulative impacts analysis in this chapter because there is no potential for impacts of the proposed project to combine with the impacts of any other project. Therefore, no cumulative analysis is provided for these resource areas:

- Agriculture and Forestry,
- Land Use and Planning,
- Mineral Resources,
- Population and Housing,
- Public Services, and
- Recreation.

4.3.2 Aesthetics

APPROACH

Aesthetic and visual resources impacts are project-specific and highly localized; therefore, the list approach was used to evaluate potential cumulative impacts. Aesthetic impacts of projects visible from the same areas where the project would be visible were evaluated to determine whether there would be significant cumulative aesthetic and visual impacts. The geographic extent for considering cumulative impacts to aesthetics includes all projects within the same viewshed (i.e., visible from a viewer's location) of the proposed project components, which is a conservative estimate of the likely maximum distance from which projects would be visible, particularly considering the terrain of the project area and that the project site is well-shielded from most vantage points. Projects considered are the Monterey High School Parking Improvements, Design Development Project; Monterey High School Science Innovation Center; El Caminito Del Norte Streetlight; and Library Parking Lot Streetlight.

CUMULATIVE IMPACT ANALYSIS

The two streetlight projects and the other improvements on the Monterey High School (MHS) campus would not affect a scenic corridor or vista. The streetlights would be placed on existing poles, and the MHS parking improvement and science building would not block views of the Monterey Bay. Only the proposed project would affect a scenic vista. Therefore, there would be no cumulative impact on a scenic corridor or vista (Impact 3.1-1).

Due to site topography, it is anticipated the streetlights on El Caminito Del Norte and at the City library are not noticeable in the same viewshed as the project area. Construction of the Science Center would be completed prior to construction of the proposed project. The Monterey High School Parking Improvements Design Development Project construction, if it overlapped with that of the proposed project, would be visible in the same viewshed as the proposed project. For construction activities on these projects, activities would be temporary and short-term and consistent with construction activities that take place on an institutional campus. Parking improvements would occur at different areas around campus so that any one place would not experience extended visual quality impacts. As a result, construction activities of these projects, if they overlap, would result in less than significant construction impacts. Like the proposed project, the School Science Innovation Center and Parking Improvements, Design Development Project would fit in with the visual character of the campus. As a result, there would be a less than significant cumulative impact during operation (Impact 3.1-2).

Both the streetlights would add nighttime lighting to the area but due to the limited scope of the project (i.e., two single streetlights) the addition to overall sky glow would be limited. The Science Innovation Center will also have lighting consistent with other buildings on the school campus. The proposed project on its own would result in a significant impact related to nighttime lighting. As a result, cumulative impacts would be significant (Impact 3.1-3). Because the proposed project on its own would result in significant impacts, the project's contribution to the significant cumulative impact would also be cumulatively considerable. As described for Impact 3.1-3, no feasible mitigation is available to reduce this impact.

4.3.3 Air Quality

APPROACH

The proposed project is in Monterey County. Because Monterey County is currently classified as a state nonattainment area for respirable particulate matter (PM_{10}) and ozone, cumulative development in Monterey County as a whole could violate an air quality standard or contribute to an existing or projected air quality violation. Based on the methodology for assessing air quality impacts as explained in Section 3.2.3, the application of the Monterey Bay Air District thresholds would indicate whether the project would result in a cumulatively considerable net increase in criteria pollutants. For exposure to substantial pollutant concentrations, the approach used is the project list approach.

CUMULATIVE IMPACT ANALYSIS

The proposed project would not contribute to a cumulative impact related to a conflict with or obstruction of implementation of an air quality plan (Impact 3.2-1).

Monterey County, where the proposed project is located is in nonattainment at the state level for PM_{10} and ozone, which indicates that there is a significant cumulative air quality impact in Monterey County for these two pollutants. As discussed in Section 3.2, Air Quality, the proposed project not exceed the applicable MBARD thresholds. As a result, the project's contribution to the significant cumulative impact would not be cumulatively considerable (Impact 3.2-2).

Only the other two projects on the MHS campus are close enough to the proposed project for emissions to combine during construction are the Parking Improvements Design Development Project and Science Innovation Center Project. Construction of the Science Center would be completed prior to construction of the proposed project. Parking improvements would occur at different areas around campus so that any one place would not experience extended air quality emissions. Additionally, construction of the proposed project would intermittently emit diesel PM across the site such that activities would not last for more than a few weeks or months in any given location. Thus, onsite sensitive receptors and adjacent residential receptors would experience a short exposure period relative to the 30- or 70-year exposure timeframe recommended for health risk assessments. Cumulative impacts would be less than significant (Impact 3.2-3).

4.3.4 Archaeological, Historical, and Tribal Cultural Resources

APPROACH

Cultural and paleontological resources impacts are highly localized in that they impact resources in discrete areas; therefore, the cumulative cultural resources analysis used the List Approach (CEQA 23 Guidelines Section 15130(b)(1)(A)). The geographic scope of cumulative impacts to cultural resources includes ground-disturbing projects within 100 feet of elements of ground-disturbing elements of the proposed project that could impact known or undiscovered historical resources because cultural resources impacts are highly localized in that they impact resources in discreet and usually small areas. Due to the smaller size of human burials, the geographic scope of cumulative impacts is projects within 20 feet of the proposed project.

CUMULATIVE IMPACT ANALYSIS

The streetlight projects are more than 100 feet away and therefore too far from the proposed project to damage the same cultural resources. As a result, the streetlight project impacts would not combine with those of the proposed project to result in cumulative impacts.

The proposed project would affect the Dan Albert Stadium, which is a historical resource under CEQA. As part of the Science Innovation Center Project, a curb located in the parking lot north of the Dan Albert stadium was removed during construction of the Science Innovation Center. The curb had been constructed with Carmel stone and ranged in height from 6 to 10 inches. The parking improvements in this area necessitated the removal to allow for better access and student drop off. Activities and use of the Dan Albert Stadium have modified the existing stone bleachers over the years, and the removal of the curb is consistent with those modifications. The Parking Improvements Design Development Project would not affect the Dan Albert Stadium. As described under Impact 3.3-1, the proposed project would comply with the Secretary's Standards for Preservation and Rehabilitation and would not materially impair the resource values contributing to its historical significance and eligibility for the NRHP or CRHR and would not result in a substantial impact to an historical resource. As a result, there would be no cumulative impact related to known historical resources (Impact 3.3-1).

Construction of the Science Innovation Center is currently underway, with no reports of impacts to previously unknown historic resources. The Parking Improvements Design Development Project could involve ground-disturbing components, but they would likely be rather shallow due to the nature of the parking improvements. As a result, it is

unlikely but possible that work on the parking improvements within 100 feet of the Dan Albert Stadium could result in a significant cumulative impact (Impact 3.3-2). Mitigation Measures 3.3-2a and 3.3-2b outline procedures that would be followed to reduce the significance of this impact and protect previously unknown resources through following accepted professional standards and the requirements of CEQA for addressing historical resources. This includes full documentation of resources that are discovered, which would also protect resources that extend beyond the project area and into areas subject to parking improvements. As a result, the project's contribution to this impact would not be cumulatively considerable.

No cumulative projects are within 20 feet of ground-disturbing activities associated with the proposed project. As a result, there would be no cumulative impact related to disturbing human remains (Impact 3.3-3).

4.3.5 Biological Resources

APPROACH

The approach for the biological resources cumulative analysis is the List Approach. The project area and vicinity is developed, with habitat that is discontinuous and fragmented. Additionally, there is no habitat on site that is of good quality for special-status species, with better habitat as close as a half mile from the project site (e.g., SFB Morse Botanical Reserve). As a result, the geographic scope of the biological resources cumulative impact analysis is limited to the immediately surrounding area of MHS, which would include the Science Innovation Center and Parking Improvements Design Development Project.

CUMULATIVE IMPACT ANALYSIS

The proposed project would not require removal of Monterey cypress or Monterey pine. As a result, the project would not contribute to a cumulative impact on those species. The project would include removal of three oak trees. It is unlikely that the parking project would require removal of oak trees. Removal of any trees for the Science Innovation Center would not substantially impact habitat due to the location of the project. As a result, cumulative impacts would be less than significant (Impact 3.4-1).

Construction of the proposed project could affect nesting birds. Construction of the Science Innovation Center would be completed prior to construction of the proposed project, such that any impacts to nesting birds would not overlap with that of the proposed project. If activities associated with the Parking Improvements Design Development Project occur at the same time as the proposed project, activities may disrupt nesting birds, resulting in a cumulative impact. Because the project on its own would result in a significant impact on nesting birds, the cumulative impact would also be significant (Impact 3.4-2). The project has mitigation that would be protective of nesting birds, including pre-construction surveys, buffers around active nests, and active nest monitoring. As a result, the project's impacts on nesting birds would be minimized. Its contribution to the cumulative significant impact would not be cumulatively considerable.

Construction of the Science Innovation Center would be completed prior to construction of the proposed project, such that any construction-related impacts to riparian areas would not overlap with that of the proposed project. Construction of the proposed project would begin in November 2020, and it is anticipated any sedimentation and erosion caused by the Science Innovation Center activities would have dispersed by the time project construction activities commence. Parking improvements may result in ground disturbing activities and use of materials that could result in erosion and sedimentation, which could increase polluted runoff. Parking improvement activities would occur throughout the campus and are not anticipated to result in exposed soils for a substantial amount of time in any one place, thereby reducing the level of impact in any one area. The proposed project would also include implementation of best management practices (BMPs) from a storm water pollution prevention plan (SWPPP). As a result, cumulative impacts would be less than significant (Impact 3.4-3 and 3.4-4).

The project would not conflict with any local policies or ordinances protecting biological resources and therefore would not contribute to a cumulative impact (Impact 3.4-5).

4.3.6 Energy

APPROACH

MHS manages its own energy use on campus and has control over that energy use. The Monterey Peninsula Unified School District (MPUSD) manages district-wide energy use as part of its Energy Conservation Program, and the proposed project would be part of the MPUSD energy consumption portfolio. As a result, the geographic scope for energy consumption is the extent of MPUSD facilities.

CUMULATIVE IMPACT ANALYSIS

In addition to general operational measures to conserve energy, MPUSD's Energy Conservation Program has included energy reduction efforts such as replacing 30,000-plus fluorescent tubes with LED tubes, reducing energy consumption for lighting by 52 percent. Outdoor campuses will also have new LED exterior lights, and thermostats will be installed to better control HVAC systems. The MPUSD has also reduced non-essential turf areas by over 150,000 square feet, creating drought tolerant landscapes (MPUSD 2020b). Given energy conservation measures, cumulative impacts related to energy are less than significant (Impact 3.5-1 and 3.5-2).

4.3.7 Geology and Soils

APPROACH

Geology and soils impacts are project-specific and highly localized; therefore, the cumulative geology and soils resources analysis uses the list approach. The geographic extent for considering cumulative impacts to geology and soils impacts is 100 feet from the footprint of the proposed project components because geologic hazards are generally dependent on localized geologic and soil conditions. For paleontological resources, because specimens are the size of animals or plants, the scope of the geographic analysis is limited to 20 feet. As a result, only the projects on the MHS campus are considered in this analysis in conjunction with the proposed project.

CUMULATIVE IMPACT ANALYSIS

The project would not exacerbate seismic conditions and therefore would not contribute to a cumulative impact related to seismicity (Impact 3.6-1).

The project is located in an area with generally low susceptibility to liquefaction, with areas of locally elevated liquefaction risk. The geotechnical report for the Science Innovation Center found the potential for liquefaction to impact that project was low. The parking improvements would be located on the MHS campus and therefore subject to similar conditions. Proper engineering and review would be undertaken to address liquefaction risk. As a result, any potential cumulative impact would be less than significant (Impact 3.6-2).

Construction of the Science Innovation Center would be completed prior to construction of the proposed project, such that any construction-related impacts to erosion and loss of topsoil would not overlap with that of the proposed project. Construction of the proposed project would begin in November 2020, and it is anticipated any erosion caused by the Science Innovation Center construction activities would have dispersed and repaired by the time project construction activities commence. Parking improvements may result in ground disturbing activities and use of materials that could result in erosion. Parking improvement activities would occur throughout the campus and are not anticipated to result in exposed soils for a substantial amount of time in any one place, thereby reducing the level of impact in any one area. The proposed project would also include implementation of BMPs from a SWPPP. As a result, cumulative impacts would be less than significant (Impact 3.6-3)

There is minimal risk on site of landslides and lateral spreading. None of the projects on campus, including the proposed project, would involve substantial grading or installation of unstable slopes that would exacerbate landslide risk. Some soils have expansive qualities. Like the proposed project, the Science Innovation Center design complies with CBC regulations and underwent DSA review. Parking improvements would likewise be constructed with applicable codes and geotechnical design standards. As a result, cumulative impacts would be less than significant (Impact 3.6-4).

The MHS campus has areas with high paleontological sensitivity. However, it is not anticipated that ground disturbing activities from the three projects on campus, including the proposed project, would occur close enough to damage the same paleontological resource. As a result, there would be no cumulative impact (Impact 3.6-5).

4.3.8 Greenhouse Gas Emissions and Climate Change

APPROACH

The geographic scope of cumulative impacts from greenhouse gases (GHGs) is global and therefore whether there is a significant cumulative impact is determined on the global level.

CUMULATIVE IMPACT ANALYSIS

Regional and global emissions of GHGS result from development patterns that rely on methods and practices that generate large volumes of GHGs. Anthropogenic increases in GHGs in are the key cause of global climate change. Current scientific research indicates that potential effects of climate change include variations in temperature and precipitation, sea-level rise, impacts on biodiversity and habitat, impacts on agriculture and forestry, and human health and social impacts. The cumulative impact of greenhouse gas emissions and climate change is significant (Impact 3.7-1 and 3.7-2). The proposed project would contribute to GHG emissions during construction from use of fossil fuels for construction equipment. During operation, electricity at MHS is not carbon emitting. GHG-emitting uses (such as water use) would not be new in the area. It is also not anticipated that vehicle miles traveled (VMT) would increase. Therefore, neither construction nor operation would create a new permanent GHG-emitting source in the area or change the project area to a more-intensive type of land use. Additionally, construction activities are relatively limited due to the size of the project. Additionally, the project would not impede implementation of any plans or policies to reduce GHG emissions. As a result, the project's contribution to the significant cumulative impact would not be cumulatively considerable.

4.3.9 Hazards and Hazardous Materials

APPROACH

The cumulative hazards and hazardous materials analysis uses the list approach for hazardous materials and fire impacts. Hazardous materials impacts are project-specific and highly localized. Fires in urban areas also tend to be contained to small areas. The geographic scope of hazardous material cumulative impacts would be the area within 100 feet of the proposed project disturbance areas. The limited geographic scope is due to the fact that there is low risk for a geographically large and dispersed hazardous material spill or release as a result of the proposed project. The greatest risk includes spillage of gasoline, diesel fuel, oil, and lubricants during construction. In the event of an accident, none of the hazardous substances would be expected to be released in large quantities or to travel long distances.

CUMULATIVE IMPACT ANALYSIS

Construction of the Science Innovation Center would be completed prior to construction of the proposed project, such that any construction-related impacts to hazards and hazardous materials would not overlap with that of the proposed project. For example, an undocumented underground fuel storage tank was encountered during

construction of the Science Center project directly north of the Dan Albert Stadium, but the fuel was drained, the tank cleaned and the tank was safely removed from the site. Parking improvements could overlap with construction of the proposed project; this project would use similar hazardous materials as the proposed project. While both projects would also occur on the MHS campus, activities for both projects would use limited hazardous materials and would comply with applicable regulations regarding their handling, use, storage, and disposal. As a result, this cumulative impact would be less than significant (Impact 3.8-1, Impact 3.8-2).

The project would have no impact related to known hazardous materials sites and would not contribute to a cumulative impact (Impact 3.8-3).

The Science Innovation Center and parking improvements would not be conflicting uses in the Airport Influence Area. The proposed project is not in conflict with AIA land use restrictions. As a result, there would be no cumulative impact (Impact 3.8-4). Likewise, the project would not conflict with implementation of an adopted emergency response plan or evacuation plan. Therefore, there would be no cumulative impact (Impact 3.8-5). The project would not install any fire prevention infrastructure or result in exposure of people to post-fire environmental hazards. Therefore, there would be no cumulative impact (Impact 3.8-7, Impact 3.8-8).

Construction of the Science Innovation Center would be completed prior to construction of the proposed project, such that any construction-related fire risks would not overlap with that of the proposed project. The science center would contain all necessary infrastructure per the CBC to suppress fire, as would the proposed project. Activities associated with parking improvements also carry with it a fire risk from sparking vegetation. Standard practices related to fire suppression and prevention are followed on campus. As a result, cumulative impacts would be less than significant (Impact 3.8-6).

4.3.10 Hydrology and Water Quality

APPROACH

The cumulative hydrology and water quality analysis uses the list approach due to the localized and limited effects of the proposed project. Likewise, the geographic scope is 100 feet due to the localized nature of the project's impacts.

CUMULATIVE IMPACT ANALYSIS

Construction of the Science Innovation Center would be completed prior to construction of the proposed project, such that any construction-related impacts to runoff would not overlap with that of the proposed project. Construction of the proposed project would begin in November 2020, and it is anticipated any sedimentation caused by the Science Innovation Center activities would have dispersed by the time project construction activities commence. Parking improvements may result in ground disturbing activities and use of materials that could result in erosion and sedimentation, which could increase polluted runoff. Parking improvement activities would occur throughout the campus and are not anticipated to result in exposed soils for a substantial amount of time in any one place, thereby reducing the level of impact in any one area. The proposed project would also include implementation of BMPs from a SWPPP. As a result, cumulative impacts would be less than significant (Impact 3.9-1).

Construction of the project would use a minimal amount of water for activities such as dust suppression. Construction of the Science Innovation Center and parking improvements also utilizes water. California American obtains its water from groundwater. However, these temporary and limited water during construction of these facilities would not substantially affect groundwater supplies due to the short-term need (e.g., only during dust generation and for worker sanitary needs). Attendees that currently utilize facilities during the MHS football games at the Monterey Peninsula College—which also obtains water from California American Water—would, in the future, utilize facilities at MHS. Minimal water would be used for landscaping. This indicates there would not be a cumulative groundwater impact during operation. The project site is not located in a groundwater basin and would not affect groundwater recharge. Cumulative groundwater impacts during construction would be less than significant (Impact 3.9-2)

There are no streams or rivers on the MHS campus, and none of the projects would alter the course of streams or rivers. Additionally, parking areas and the area where the Science Innovation Center are being constructed are flat and not used for drainage of substantial amounts of runoff. Most parking improvement work would involve restriping rather than paving currently unpaved areas. The proposed project design contains a drainage and utility plan. Therefore, cumulative impacts related to stormwater runoff would be less than significant (Impact 3.9-3).

The project would not conflict with a water quality control plan or sustainable groundwater management plan and therefore would not contribute to a cumulative impact (Impact 3.9-4).

4.3.11 Noise

APPROACH

Noise and vibration impacts are highly localized; therefore, the cumulative noise and vibration analysis uses the project list approach. The geographic scope of the analysis is projects within 200 feet of campus so as to capture potential noise and vibration sources whose impacts may combine.

CUMULATIVE IMPACT ANALYSIS

All three projects on the MHS campus would generate noise during construction activities. Construction of the project would not overlap with construction of the Science Innovation Center because the Science Innovation Center would be completed prior to construction of the proposed project. The installation of of parking improvements could generate noise in various areas throughout the campus, and the noise would likely be more limited than the proposed project because parking improvements would involve less-noise-intensive activities (e.g., restriping for reconfiguration of parking spaces) than the proposed project, and noise would be limited. Furthermore, parking project activities would occur during hours consistent with that allowed under the City's Municipal Code. As a result, cumulative construction noise impacts would be less than significant (Impact 3.11-1).

All three projects on the MHS campus would generate noise during construction activities. However, only activities like pile driving create vibration substantial enough to cause annoyance to nearby receptors. Construction activities for the Science Innovation Center would not overlap with the proposed project, and the parking improvements would not involve pile driving. Therefore, there would be no cumulative impact (Impact 3.11-2).

Noise from operation of the parking improvements would be similar to existing noise levels caused by motorists. Noise from the use of the Science Innovation Center would be similar in character and type of other school campus uses. Noise from the proposed project would take place after school hours and would not substantially overlap with the low levels of noise from parking improvements for daytime use and the Science Innovation Center, which would generally be used during school hours. As a result, there would be no cumulative impact (Impact 3.11-3).

4.3.12 Transportation

APPROACH

The impacts to transportation from the proposed project would be concentrated near the project site; therefore, the list approach was used for analyzing cumulative impacts. The geographic scope of the cumulative impact analysis is the roads that would be used for the proposed project.

CUMULATIVE IMPACT ANALYSIS

Construction of the Science Innovation Center and parking improvements and the installation of two streetlights would require vehicles and would increase VMT. Construction of the Science Innovation Center would be completed

prior to construction of the proposed project, such that any construction-related VMT would not be additive with that of the proposed project. Additionally, installation of single streetlights on two existing poles would conservatively require at most a handful of trips per day. Parking improvement construction would be similarly limited due to the type of work that would be completed. As a result, fewer than 110 temporary trips would be generated per day among all four projects, which would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b). Once constructed, the Science Innovation Center would serve existing students. Improvement of on-campus parking is meant to serve existing campus needs and would not by itself generate additional vehicle trips. Operation of the streetlights would not generate trips. As a result, there would be no cumulative operational impacts. Overall, cumulative impacts related to VMT would be less than significant (Impact 3.12-1).

Construction of the Science Innovation Center would be completed prior to construction of the proposed project, such that any construction-related hazards impacts to roadways not overlap with that of the proposed project. Parking improvements may overlap with the proposed project and may use similar points of access, including Larkin Street. If there is overlap, equipment from parking improvements would be subject to traffic controls set up for the proposed project under Mitigation Measure 3.12-1. Installation of two streetlights would not use Larkin Street for access. As a result, cumulative impacts would be less than significant (Impact 3.12-2).

The Science Innovation Center would not require additional parking because it would serve existing students. The streetlights would not require additional parking. Parking improvements on campus could temporarily take parking out of service during times when it is needed for athletic events at the Dan Albert Stadium. Conservatively, the project on-campus parking deficit is approximately 95 spaces, and approximately 299 additional parking spaces are located within one-half mile of the Dan Albert Stadium. With the proposed project, there is conservatively a surplus of approximately 204 spaces in addition to the on-street parking that is available in evening hours. Legal on-street parking is available along streets adjacent, and in close proximity to the project site including, but not limited to Martin Street, Pacific Street, Van Buren Street, and El Dorado Street. On-street parking in the project vicinity is unrestricted after 6:00 p.m. along Pacific Street and Martin Street, and along most streets in the downtown core. Additionally, because parking on campus will need to be maintained for daily student and staff use, not all parking areas on campus would be improved at one time, limiting the amount of parking temporarily taken out of commission. The surplus of parking is conservatively 204 spaces, further augmented by on-street parking, and parking improvements would be phased to maintain parking availability on campus. Therefore, there would not be a parking shortage leading to a cumulative environmental impact (Impact 3.12-3).

4.3.13 Utilities and Service Systems

APPROACH

The projections approach is used for the utilities and service systems cumulative impact analysis because provision of these services is done on a regional scale. Therefore, the geographic scope is the region relevant to the utility or service system.

CUMULATIVE IMPACT ANALYSIS

The City of Monterey found that implementation of its General Plan, which governs development within the City, would decrease available treatment capacity the regional wastewater treatment plant, which could contribute to the need for expansion of treatment capacity in the Monterey One Water service area when combined with other projects. As a result, cumulative wastewater treatment impacts are significant (Impact 3.13-1). The project's contribution to wastewater is minimal and temporary during construction and would not contribute to long-term projected increases in wastewater treatment. Additionally, operational increases in wastewater treatment would be limited to a small increase in stormwater runoff, which would be partially met by on-site stormwater treatment systems. The proposed project is not a result of General Plan buildout and merely alters an existing use. As a result, the project's contribution would not be cumulatively considerable.

Utilities are regularly planning for where capacity upgrades are needed to adequately deliver electricity and natural gas to customers. For transmission planning, Monterey is in the Central Coast and Los Padres Area. In its most recent planning cycle, the California Independent System Operator identified several measures need to avoid reliability concerns related to transmission, and some of these projects require reconductoring and substation construction (CAISO 2020). Cumulative impacts related to electricity provision could therefore be significant. However, natural gas use in California has stayed somewhat steady in the past 20 years (EIA 2020); therefore, there is no significant cumulative impact related to natural gas infrastructure (Impact 3.13-1). The project would result in a minor, temporary increase in electricity use. Electricity use during operation would largely be merely a shift in location of use. MPUSD also has extensive solar facilities that localize the point of power generation and minimizes the need for additional infrastructure. As a result, the project's contribution to the cumulative impact for electricity supply would not be cumulatively considerable.

Water supply is considered a development constraint in the City of Monterey. The increase in water demand as a result of the General Plan was determined to be significant. As a result, water supply is a significant cumulative impact (Impact 3.13-2). Construction of the proposed project would temporarily use minimal amounts of water for uses such as dust suppression. It would not recontribute to the increases in demand associated with development, as the site would be a modification of a parcel already designated for MPUSD use. During operation, increased water use at MHS would mostly be a shift in use from other places with a minor increase in water use for minimal landscaping. As a result, the project's contribution to the cumulative impact would be less than significant.

It is estimated that the Monterey Peninsula Landfill and Material Recovery Facility has capacity to accommodate future service needs for the next approximately 150 years (LAFCO 2015). This projection considers projected waste from all sources. As a result, cumulative solid waste impacts would be less than significant (Impact 3.13-3).

5 ALTERNATIVES

5.1 INTRODUCTION

This chapter describes alternatives to the proposed project that were developed pursuant to the California Environmental Quality Act (CEQA). CEQA Guidelines Section 15126.6 provides guidance for treatment of project alternatives in the EIR:

- There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. An EIR need not consider every conceivable alternative to a project. (CEQA Guidelines Section 15126.6(a)).
- The range of alternatives to the project shall include those that are potentially feasible, attain most of the basic objectives of the project, and avoid or substantially lessen any of the significant effects of the project (CEQA Guidelines Section 15126.6(a)).
- The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project, though the alternatives need not be analyzed to the same extent as 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 must be discussed, but in less detail than the significant effects of the project as proposed (CCR Section 15126.6[d]).
- The State CEQA Guidelines requires that the "no project" alternative be considered (CCR Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "…shall also identify an environmentally superior alternative among the other alternatives." (CCR Section 15126[e][2]).

5.2 METHODOLOGY FOR SELECTION OF ALTERNATIVES

5.2.1 Potential Feasibility

An EIR must "consider a range of potentially feasible alternatives" (CEQA Guidelines section 15126.6(a)). CEQA Guidelines Section 15126.6(f) (1) explains "feasibility" (e.g., "… feasibly attain most of the basic objectives of the project …"), in part, as follows:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is definitively feasible or infeasible is made by the lead agency's decision-making body, here the District Board of Education. (See PRC Sections 21081.5, 21081[a] [3].) As a result, the EIR only concludes whether an alternative is potentially feasible.

5.2.2 Attainment of Project Objectives

As described above, one factor that must be considered in selection of alternatives is the ability of a specific alternative to attain most of the basic objectives of the project (CEQA Guidelines Section 15126.6[a]). The project objectives are identified in Chapter 2, "Project Description," and described below:

- **Improve on-campus athletic facilities at Monterey High School for athlete practice and games to enhance opportunities for after-school athletic and extracurricular activities for students.** MHS currently has one field that hosts all athletic activities. At some times, athletes for multiple sports, such as field hockey, football, water polo, and cheerleading, are together, all sharing the Dan Albert Stadium field, which can restrict the options for student athletes to practice because too many athletes on the field at once can lead to safety issues. Therefore, the District proposes to construct new and expand existing facilities to allow for more practices to safely occur at once and to expand the options that student athletes have for practicing, game play, and conditioning. Additionally, the Dan Albert Stadium does not have facilities that are compliant with the Americans with Disabilities Act (ADA), and the District proposes to upgrade facilities so that spectators in need of ADA-compliant access are able to attend games and other events. An upgraded public address system would also facilitate announcements, some of which are mandated by the Central Coast Section Playoff Bylaws. This will contribute to a more robust student athlete program at MHS.
- **Facilitate night-time athletic events and practices at the Dan Albert Stadium.** Use of temporary night lighting is currently an option at the Dan Albert Stadium for certain MHS activities, including practices and some games, occurring outside of the daytime. The temporary lighting is insufficient and inadequate for a number of reasons, and the District seeks a more efficient, effective, and well-designed option than temporary lighting. Some drawbacks of the temporary lighting included unpleasant odors and noise from generators. The temporary lighting is also insufficient for safety reasons. For instance, Peninsula Sports, Inc., will not provide referees for football games held under the temporary lighting at Dan Albert Stadium. Currently, MHS holds night-time football games at the Monterey Peninsula College, which requires payment of rental fees and also moves athletic activities off campus, which is disruptive to academic activities. Additionally, soccer games must end early when they go into evening hours due to lack of lighting. The District, therefore, seeks to find a better option for hosting night-time MHS activities on the MHS campus.
- **Provide adequate visitor seating separated from the home team seating area at the Dan Albert Stadium.** The existing seating at the Dan Albert Stadium does not provide separation of home and visitor spectators. Seating MHS home fans together boosts school pride and reduces conflicts, which results in a better game experience for all attendees and enhanced safety for spectators. The Pacific Coast Athletic League Commissioner has communicated to MPUSD that separate sections for home and visiting fans are important for fan safety and crowd control. Therefore, the District is proposing a seating configuration at the stadium that separates home and visiting team fans.

Objective 1 is a basic project objective for the safety reasons noted, as well as the importance of providing adequate access, opportunity, and facilities to the entire student body. Currently, some practices are either canceled, cut short, or held elsewhere because the MHS facilities are not adequate—either in size or type—to meet the needs of MHS student activities. This results in missed opportunities and space constraints for the MHS student body. The District seeks sufficient facilities capable of hosting all MHS athletic events and practices, in addition to some non-athletic activities appropriate for a field, such as marching band practice. Moving MHS athletic events off-campus can also be detrimental to school spirit and create a sense that certain activities are not valued as much as others that continue to be held on campus. Providing adequate facilities would, therefore, enhance student athletic and extracurricular activities.

Objective 2 is a basic project objective for the safety reason noted and because of the substantial diminishment of MHS activities that occurs because of the inability to use the Dan Albert Stadium during evening hours. The inability to use the Dan Albert Stadium during evening hours is disruptive to several practices and games, including football, cross country, field hockey, girls' soccer and boys' soccer, and girls' lacrosse games. These activities must end prematurely without the ability to use the facilities past sunset. The lack of lighting also requires decentralizing MHS

activities by moving them off-campus. This increases costs to MPUSD from rental and transportation fees, and moving activities off-campus can be detrimental to school spirit. Additionally, provision of adequate lighting resolves visibility concerns that arise when activities extend into evening hours. As a result, facilitating safe evening use of the Dan Albert Stadium is a basic project objective.

Objective 3 is a basic project objective because of the need for adequate spectator management during games. Addition of separate seating for visiting team and spectators addresses potential health (social distancing) and safety (potential for fan conflicts) issues. Separate seating would also serve to enhance the game time experience for students and spectators. Addition of the visitor-side seating would also meet the guidance of the Pacific Coast League Athletic Commissioner to seat home and visitor sides separately within the stadium for games.

5.2.3 Potential to Avoid or Substantially Reduce a Significant Impact

Alternatives considered in an EIR must avoid or substantially lessen any of the significant effects of the proposed project (CEQA Guidelines section 15126.6(a)). Sections 3.1 through 3.13 of this Draft EIR address the environmental impacts of implementation of the Monterey High School Stadium Improvements project. The following significant impacts were identified for the proposed project:

- **Impact 3.1-3 (Aesthetics, Light, and Glare):** Create a New Source of Substantial Light or Glare During Construction and When in Use after Completion
- **Impact 3.3-2 (Archaeological, Historical, and Tribal Cultural Resources):** Cause a Substantial Adverse Change in the Significance of a Previously Undiscovered Historical Resource or Archaeological Resource
- **Impact 3.3-3 (Archaeological, Historical, and Tribal Cultural Resources):** Disturb Human Remains
- **Impact 3.4-2 (Biological Resources):** Substantially Affect Nesting or Migratory Birds or Bats Either Directly or Through Habitat Modifications
- **Impact 3.6-5 (Geology and Soils):** Directly or Indirectly Destroy a Unique Paleontological Resource
- **Impact 3.11-3 (Noise and Vibration):** Generate Noise During Evening Use of Dan Albert Stadium and Daytime Use of the Lower Field
- **Impact 3.12-2 (Transportation):** Substantially Increase Hazards due to a Design Feature or Incompatible Uses

5.3 COMPARISON AND ANALYSIS OF ALTERNATIVES

The following discussion summarizes the alternatives evaluated, why they meet CEQA requirements for consideration of alternatives, and then provides an evaluation of the alternative. Alternatives evaluated in this Draft EIR are:

- Alternative 1: Portable Lighting and Portable Public Address System
- Alternative 2: Restricted Use
- Alternative 3: Nighttime Curfew
- Alternative 4: No Visitor Bleachers and Portable Public Address System
- Alternative 5: Seasonal Lighting Restrictions and No Non-MPUSD Events

Further details on these alternatives, and an evaluation of environmental effects relative to the proposed project, are provided below.

5.3.1 Alternative 1: Portable Lighting and Portable Public Address System

DESCRIPTION OF ALTERNATIVE

This alternative would involve MPUSD constructing all improvements included as part of the project except for the new field lighting at Dan Albert Stadium. Instead of new permanent field lighting, a form of portable lighting would be used. Therefore, MPUSD would construct the lower field, construct the new visitor bleachers, improve the existing bleachers, and construct the new press box. Because there would be no permanent light standards (on which the public address system would be installed for the proposed project), this alternative would also not include the permanent PA system; a portable public address system would be used. For the sake of discussion of this alternative, it is assumed that nighttime athletic events could occur with the use of portable lighting, although in reality it is uncertain these events could occur, as discussed in greater detail below. Addition of the new lower field facilities, practices could occur at Dan Albert Stadium and the lower field at the same time, providing additional space to student athletes.

EVALUATION OF ALTERNATIVE

Meet Most of the Basic Project Objectives

This alternative could meet most of the basic project objectives, depending on the kind of lighting used.

This alternative could partially meet the objectives of improving on-campus athletic facilities by providing more space for athletes to practice simultaneously and of facilitating night-time athletic events and practices at Dan Albert Stadium. Portable field lighting, as has been used in the past at MHS, would not provide for athletic games in evening hours. In a letter to MPUSD dated September 26, 2019, the Commissioner of the Pacific Coast Athletic League indicated that "because of health and safety concerns, the association supplying…football officials stated this year that they would no longer work with portable lighting such as [that] used at Monterey High School in the past. Both the lighting resulting from such portables as well as fumes and exhaust caused by the diesel motors were major concerns." As a result, portable field lighting using fuel would not allow for full use of MHS facilities. Nonetheless, it is possible that practices could occur. As a result, this alternative could provide for some use of Dan Albert Stadium at night and could meet this objective.

Portable LED field lighting that plugs into on-site electrical power is also an option. Such lighting is designed to either use on-board fuel or be plugged into an onsite electrical power supply (Boss LTR 2020). This indicates the same safety concerns about inadequate lighting that were raised by the League Commissioner may still exist with electrical portable lights. However, there may be a configuration of electrical lighting that provides safe and adequate field lighting, so this alternative could allow for use of MHS facilities at night with the use of electrical lights. However, the ability to host games could still be affected at the Dan Albert Stadium if the field lighting is determined to be inadequate for game play. This alternative, therefore, may not meet part of the basic project objectives of improving on-campus athletic facilities and facilitating night-time athletic events and practices if electric lighting is not provided in a configuration that provides sufficiently safe levels of lighting.

This alternative would meet the objective of providing adequate visitor seating away from the home team seating area at the Dan Albert Stadium because the visitor bleachers would be constructed.

Potential Feasibility

Use of portable lighting would require additional labor hours from MPUSD staff to set up and take down the portable lights before and after each practice and event. Procuring fuel-based portable lighting has been done in the past and is potentially feasible considering technical, legal, economic, and environmental factors. Procuring LED lighting is potentially feasible but would be limited by local availability and may not address safety concerns from the Pacific Coast Athletic League. The use of portable lighting would require additional labor for setup and takedown for all

evening activities, resulting in increased labor costs. As stated above, there is also uncertainty as to whether a portable lighting design could be implemented that would address the concerns raised by the League Commissioner. Because portable lights would not be specifically designed to illuminate from an elevated position, staff would need to do their best to direct the lights downward while adequately lighting the playing area each time the lighting is set up. Similarly, the temporary PA system poses additional costs because staff would need to set up and put away the PA system before and after each event. It is likely that the nighttime use of the portable PA system would be limited to football games. Additionally, the portable PA system is not designed for the Dan Albert Stadium and is therefore not directed toward the field and bleachers. At this time, this alternative is considered potentially feasible.

Comparison of Environmental Impacts

The alternative would have the following effects compared to the proposed project:

- **Aesthetics:** To provide adequate lighting for practice and game play, portable LED lighting chosen under this alternative would need to, at a minimum, replicate the same lighting levels as the proposed project. As a result, this alternative would not reduce impacts of nighttime lighting. Additionally, because portable lights would not be specifically designed to illuminate from an elevated position, staff would need to do their best to direct the lights downward while adequately lighting the playing area. With a lower height of portable lights projecting light horizontally, this alternative could lead to more light spill than the proposed project. All other visual changes would be **similar** to those described for the proposed project because the same facilities would be constructed under this alternative.
- **Air Quality, Greenhouse Gases, and Energy:** This alternative would require the same kinds of construction of the proposed project, save for installation of four permanent light standards. It is not expected to affect the intensity of construction on any one day; therefore, the same level of air quality impact would occur as for the proposed project. Operations would also be **similar** for the proposed project, presuming that similar amounts of electricity would be consumed by the portable temporary lights as for the permanent lighting.
- **Archaeological, Historical, and Tribal Cultural Resources:** This alternative would require the same kinds of construction of the proposed project, save for installation of four permanent light standards. The significant impacts related to unearthing previously undiscovered resources are largely linked to work at the lower field, which would still occur under this alternative. Similarly, impacts to the Dan Albert Stadium are largely linked to the suite of modifications proposed at the stadium such as modifications to the existing stone bleachers for ADA compliance. These modifications would still occur under this alternative. As a result, this alternative would have **similar** impacts to the proposed project.
- **Biological Resources:** This alternative would require the same kinds of construction of the proposed project, save for installation of four permanent light standards. The significant impacts to biological resources are linked to construction at the lower field. These activities would still occur under this alternative. As a result, this alternative would have **similar** impacts to the proposed project.
- **Geology and Soils, Hydrology and Water Quality:** This alternative would require the same kinds of construction of the proposed project, save for installation of four permanent light standards. The significant impacts to paleontological resources are associated with work for the bleachers and ground-disturbing activities at the lower field. These activities would still occur under this alternative. As a result, this alternative would not avoid or substantially reduce a significant impact of the proposed project on paleontological resources. The alternative would also have **similar** effects to geology and soils and hydrology and water quality because there would be similar levels of ground disturbance under this alternative when compared to the proposed project.
- **Hazards and Hazardous Materials:** This alternative would require the same kinds of construction of the proposed project, save for installation of four permanent light standards. As a result, **similar** types and amounts of hazardous materials would be used under this alternative. If the lights chosen under this alternative are fuel-powered lights or lights with insufficient illumination, then this alternative would result in safety impacts that would not occur under the proposed project.

- **Land Use and Planning, Utilities and Service Systems** As for the proposed project, this alternative would not change land use patterns in the project area. It would also use the same level of resources as for the proposed project in terms of utilities and service systems. Therefore, impacts would be the **similar** as the proposed project.
- **Noise:** Because a new PA system would be installed on the light standards proposed as part of the proposed project and this alternative would not involve installation of permanent light standards, a portable PA system would need to be used as part of this alternative, and nighttime announcements would likely only be made for nighttime football games. The PA system may also result in less-directed noise generation from the PA system because it is not specifically designed for the stadium. The significant impacts related to stadium use in the evening is related to a both crowd noise and the PA system, with each source having a different contribution to the impact at sensitive receptors. At several receptors, the effective noise changed caused by the PA system and crowd noise on their own is substantial, as shown in Table 3.11-9. As a result, this alternative would substantially reduce noise impacts because the PA system would be used at fewer nighttime activities than for the proposed project. Other noise generating impacts would be similar to the proposed project, as similar types of construction and operation activities would occur under this alternative. Therefore, this alternative would result in **less** impacts compared to the project.
- **Transportation:** This alternative would require the same kinds of construction of the proposed project, save for installation of four permanent light standards. Therefore, the same safety impact related to traffic would occur under this alternative as for the proposed project. The same levels and patterns of attendance are expected under this alternative as for the proposed project; as a result, parking and VMT impacts would be the same as for the proposed project. Therefore, this alternative would result in **similar** impacts compared to the project.

CONCLUSION

This alternative may meet most of the project objectives and would be potentially feasible but raises concerns about staff labor as well as the performance of the temporary lighting and portable public address system. This alternative would substantially lessen the noise impacts of the proposed project if electric lighting is used because the portable PA system would likely only be used for nighttime football games. The ability of portable electric lights to be sufficient for nighttime league games would be uncertain, and the alternative's light spill may be greater than the proposed project.

5.3.2 Alternative 2: Restricted Use

DESCRIPTION OF ALTERNATIVE

This alternative would involve MPUSD constructing all project improvements included as part of the proposed project. Therefore, MPUSD would construct the lower field, install the new lights, construct the new visitor bleachers, improve the existing bleachers, and construct the new press box. Several of these restrictions would be consistent with the 2007 "Rules for Use of Monterey High School Field and Stadium," and would include further restrictions previously proposed to address neighbors' concerns related to the proposed project. Use of the MHS facilities would be restricted as follows:

- **Sunday:** No use of the lower field or Dan Albert Stadium field would occur.
- **Saturday:** No use of the lower field or Dan Albert Stadium field for school-related activities would begin before 8:00 a.m. and must end by sunset. For non-school related activities, uses would not begin before 9:00 a.m. and would end by sunset.
- **Weekdays:** Any use of the Dan Albert Stadium by non-school related group use would not begin before 9:00 a.m. and would end by 6:00 p.m.

- Non-school related use of PA system and Lighting at Dan Albert Stadium: Non-school related activities would not use the PA system or field lighting at Dan Albert Stadium.
- MHS Athletic Game use of Lighting at Dan Albert Stadium: While lights may be used for all evening football games, lights would be used only for up to four select games played by each of the other Monterey High field sports (girls' and boys' soccer, field hockey, and lacrosse) during the months of October to March. This would total sixteen games among soccer, field hockey, and lacrosse. Field sport games other than football generally end around 7:00 p.m. and lights would be turned off soon after the conclusion of the game. At no time on game days will lights for field sports other than football be left on later than 8:00 p.m. Lights would not be used for any games during the months of April through September.
- MHS Athletic Practice use of Lighting at Dan Albert Stadium: Lights may be used for field sports practices during the months of October to March only. Practices for field sports generally end by 7:00 p.m. and lights will be turned off as soon as practicable after the end of practice, taking into account safety and any cleanup activities that must occur. At no time will lights for practices be left on later than 8:00 p.m. Lights would not be used for any practices during the months of April through September.
- Parking control: Field sports games that draw large crowds on night games will have security to direct cars to overflow parking at the district office and designated city parking areas if necessary.

Unless otherwise restricted, use of the Dan Albert Stadium and lower field would follow the schedule described in Chapter 2, Project Description. For example, football games would generally extend to 10 p.m. and would utilize the new field lighting.

EVALUATION OF ALTERNATIVE

Ability to Meet Most of the Basic Project Objectives

This alternative would likely meet most of the basic project objectives. This alternative would meet the objective of improving on-campus athletic facilities, including facilitating games that extend into evening hours and providing more space for athletes to practice simultaneously. For non-football games, use of nighttime lighting would be limited to between the months of October and March; however, this limitation would affect only games, and football games are not subject to this lighting restriction. As a result, this alternative allows for substantial use of the facilities for nighttime athletic events and practices at the Dan Albert Stadium. This alternative would meet the objective of providing adequate visitor seating away from the home team seating area at the Dan Albert Stadium because the visitor bleachers would be constructed. This alternative would likely meet all three of the project objectives, including the two basic project objectives.

Potential Feasibility

This alternative is potentially feasible and could be constructed considering technical, legal, environmental, and economic factors.

Comparison of Environmental Impacts

The alternative would have the following effects compared to the proposed project.

- Aesthetics, Light and Glare: This alternative would install lighting standards as proposed by the project, but would restrict its use. While it is challenging to predict the number and type of nighttime events that could occur at Dan Albert Stadium, any reduction in the potential frequency of use of nighttime lighting would be considered a substantial reduction of nighttime lighting impacts due to the sensitivity of neighborhood receptors. This alternative would also prevent some instances where lights may be kept on longer than anticipated for practices, which would also reduce the potential for nighttime lighting impacts. Other aesthetic impacts related to construction and visual changes at the lower field would be similar to the proposed project. Because this alternative would reduce the frequency of nighttime lighting use, changes in the nighttime lighting environment would be less. Therefore, this alternative would result in **less** impacts compared to the project.

- **Air Quality, Greenhouse Gases, and Energy:** This alternative would require the same type of construction activities as the proposed project. It is not expected to affect the intensity of construction on any one day; therefore, the same level of air quality impact would occur as for the proposed project. Prohibiting the use of nighttime lighting by non-MPUSD entities could reduce energy demands; however, it is unlikely that this would result in a significant difference in energy consumption. Therefore, this alternative would overall result in **similar** impacts compared to the project.
- **Archaeological, Historical, and Tribal Cultural Resources:** This alternative would require the same type of construction activities as the proposed project. The significant impacts related to unearthing previously undiscovered resources are largely linked to work at the lower field, which would still occur under this alternative. Similarly, impacts to the Dan Albert Stadium are largely linked to the suite of modifications proposed at the stadium such as modifications to the existing stone bleachers for ADA compliance. These modifications would still occur under this alternative. As a result, this alternative would overall have **similar** impacts to the proposed project.
- **Biological Resources:** This alternative would require the same types of construction activities as the proposed project. The significant impacts to biological resources are linked to construction at the lower field. These activities would still occur under this alternative. As a result, this alternative would have overall **similar** impacts to the proposed project.
- **Geology and Soils, Hydrology and Water Quality:** This alternative would require the same types of construction activities as the proposed project. The significant impacts to paleontological resources are associated with work for the bleachers and ground-disturbing activities at the lower field. These activities would still occur under this alternative. As a result, this alternative would not avoid or substantially reduce a significant impact of the proposed project on paleontological resources. The alternative would overall have **similar** effects to geology and soils and hydrology and water quality because there would be similar levels of ground disturbance under this alternative when compared to the proposed project.
- **Hazards and Hazardous Materials:** This alternative would require the same type of construction activities as the proposed project. As a result, similar types and amounts of hazardous materials would be used on-site, transported, and disposed of under this alternative. And the potential to encounter contaminated soils would be the same. Therefore, this alternative would have **similar** impacts to the proposed project.
- **Land Use and Planning, Utilities and Service Systems** Similar to the proposed project, this alternative would not change land use patterns in the project area. The increase in demand for utilities and service systems would also be similar. As a result, this alternative would have **similar** impacts to the proposed project.
- **Noise:** This alternative would install the PA system on the project site. The significant impacts related to stadium use in the evening is related to a both crowd noise and the PA system, with each source having a different contribution to the impact at sensitive receptors. The significant noise impacts related to stadium use in the evening is related to a both crowd noise and the PA system, with each source having a different contribution to the impact at sensitive receptors, as shown in Table 3.11-9. This alternative would restrict the use of the PA system to school-related use only. At several receptors, the effective noise changed caused by the PA system is substantial, as shown in Table 3.11-9. This alternative also limits the length of night games for some MHS sports, which could reduce nighttime crowd noise. As a result, this alternative could substantially reduce noise impacts. Other noise generating impacts would also be similar to the proposed project, as similar types of construction and facility use would occur under this alternative. Therefore, this alternative would have **less** impacts than the proposed project.
- **Transportation:** This alternative would require the same kinds of construction of the proposed project. Therefore, the same safety impact related to traffic would occur under this alternative. As a result, this alternative would not substantially reduce the significant impact. The same levels and patterns of attendance are expected under this alternative as for the proposed project; as a result, VMT impacts would be the same as for the proposed project. Therefore, this alternative would have **similar** impacts to the proposed project.

CONCLUSION

This alternative would likely meet all of the project objectives, would be potentially feasible, and would substantially lessen the nighttime lighting and noise impacts of the proposed project.

5.3.3 Alternative 3: Nighttime Curfew

DESCRIPTION

Under this alternative, MPUSD would construct the project as proposed; however, all nighttime activities would be required to end by 9:00 p.m. Nighttime activities that require the use of the field after the 9:00 p.m. curfew, including football games, would be rescheduled or relocated off-site.

EVALUATION OF ALTERNATIVE

Ability to Meet Most of the Basic Project Objectives

This alternative would substantially meet the objective of improving on-campus athletic facilities. It would provide more space for athletes to practice simultaneously and into the evenings, although the nighttime curfew could impede use of the Dan Albert Stadium for football games. This alternative would allow for all practices to occur at night, because practices would end before 9:00 p.m. However, this alternative would not allow for evening football games to occur. Similar schedule challenges that are currently occurring, such as prioritizing varsity football over junior varsity football, would continue to occur. Games that might go past 9:00 p.m. would still have to be played off-site or rescheduled to end prior to the curfew. Because all practices could still be held, and it is possible to hold some football games on campus if they end by 9:00 pm, this alternative could meet this basic project objective. This alternative would meet the objective of providing adequate visitor seating away from the home team seating area at the Dan Albert Stadium because the visitor bleachers would be constructed. This alternative would likely therefore meet most of the basic project objectives.

Potential Feasibility

This alternative would involve construction of all improvements proposed under the proposed project but would require rescheduling football games and continuing to hold some games off-site as is currently being done. As a result, this alternative is potentially feasible considering legal, technical, environmental, and economic factors.

Comparison of Environmental Impacts

The alternative would have the following effects compared to the proposed project.

- Aesthetics, Light and Glare: This alternative would install lighting standards as proposed by the project but would restrict its use. While the reduction in nighttime lighting use would mainly affect football games, any reduction in the potential frequency of use of nighttime lighting would be considered a substantial reduction of nighttime lighting impacts due to the sensitivity of neighborhood receptors. Additionally, this alternative would limit the lighting impact at the latest hours of potential use of the Dan Albert Stadium (past 9 pm), when receptors are most sensitive to nighttime lighting impacts. Other aesthetic impacts related to construction and visual changes at the lower field would be similar to the proposed project. Because this alternative would reduce the frequency of nighttime lighting use, changes in the nighttime lighting environment would be less. Therefore, this alternative would result in less impacts compared to the project.
- Air Quality, Greenhouse Gases, and Energy: This alternative would require the same type of construction activities as the proposed project. It is not expected to affect the intensity of construction on any one day; therefore, the same level of air quality impact would occur as for the proposed project. Prohibiting the use of nighttime lighting by non-MPUSD entities could reduce energy demands; however, it is unlikely that this would result in a

significant difference in energy consumption. Therefore, this alternative would overall result in **similar** impacts compared to the project.

- **Archaeological, Historical, and Tribal Cultural Resources:** This alternative would require the same type of construction activities as the proposed project. The significant impacts related to unearthing previously undiscovered resources are largely linked to work at the lower field, which would still occur under this alternative. Similarly, impacts to the Dan Albert Stadium are largely linked to the suite of modifications proposed at the stadium such as modifications to the existing stone bleachers for ADA compliance. These modifications would still occur under this alternative. As a result, this alternative would overall have **similar** impacts to the proposed project.
- **Biological Resources:** This alternative would require the same types of construction activities as the proposed project. The impacts to biological resources are linked to construction at the lower field. These activities would still occur under this alternative. As a result, this alternative would have overall **similar** impacts to the proposed project.
- **Geology and Soils, Hydrology and Water Quality:** This alternative would require the same types of construction activities as the proposed project. The significant impacts to paleontological resources are associated with work for the bleachers and ground-disturbing activities at the lower field. These activities would still occur under this alternative. As a result, this alternative would not avoid or substantially reduce a significant impact of the proposed project on paleontological resources. The alternative would overall have **similar** effects to geology and soils and hydrology and water quality because there would be similar levels of ground disturbance under this alternative when compared to the proposed project.
- **Hazards and Hazardous Materials:** This alternative would require the same type of construction activities as the proposed project. As a result, similar types and amounts of hazardous materials would be used on-site, transported, and disposed of under this alternative. And the potential to encounter contaminated soils would be the same. Therefore, this alternative would have **similar** impacts to the proposed project.
- **Land Use and Planning, Utilities and Service Systems** Similar to the proposed project, this alternative would not change land use patterns in the project area. The increase in demand for utilities and service systems would also be similar. As a result, this alternative would have **similar** impacts to the proposed project.
- **Noise:** This alternative would install the PA system on the project site. The significant impacts related to stadium use in the evening is related to a both crowd noise and the PA system, with each source having a different contribution to the impact at sensitive receptors, as shown in Table 3.11-9. This alternative would limit the use of the Stadium to before 9 pm, eliminating these noises at the latest hours of stadium use when receptors are most sensitive to noise. As a result, this alternative could substantially reduce noise impacts. Other noise generating impacts would also be similar to the proposed project, as similar types of construction and facility use would occur under this alternative. Therefore, this alternative would have **less** impacts than the proposed project.
- **Transportation:** This alternative would require the same kinds of construction of the proposed project. Therefore, the same safety impact related to traffic would occur under this alternative. As a result, this alternative would not substantially reduce the significant impact. The same levels and patterns of attendance are expected under this alternative as for the proposed project; as a result, VMT impacts would be the same as for the proposed project. Therefore, this alternative would have **similar** impacts to the proposed project.

CONCLUSION

This alternative would likely meet all of the project objectives, be potentially feasible, and substantially lessen the nighttime lighting and noise impacts of the proposed project.

5.3.4 Alternative 4: No Visitor Bleachers and Portable Public Address System

DESCRIPTION

Under this alternative, MPUSD would construct all improvements included as part of the project except for the visiting team bleachers and PA system. A portable PA system would be used for game announcements. Therefore, MPUSD would construct the lower field, construct the lighting standards, improve the existing bleachers, and construct the new press box. This alternative would also include modifying the existing home bleachers to provide assigned sections to separate visitor and home spectators, although home spectators would still be seated adjacent to visiting spectators.

EVALUATION OF ALTERNATIVE

Meet Most of the Basic Project Objectives

This alternative would likely meet all of the project objectives. This alternative would also meet the objective of improving on-campus athletic facilities and provide more space for athletes to practice simultaneously. This alternative would meet the objective of facilitating night-time athletic events and practices at the Dan Albert Stadium. This alternative would meet the objective of providing adequate visitor seating at the Dan Albert Stadium because the visitor seating would be separated from home seating; however, MPUSD will need to determine if the objective of separating fans can be fully met using existing bleacher seating one side of the field. This alternative could meet all of the project objectives if visitor and home spectator separation is sufficient.

Potential Feasibility

The portable PA system poses additional costs because staff would need to set up and put away the PA system before and after each event. It is likely that the nighttime use of the portable PA system would be limited to football games. Additionally, the portable PA system is not designed for the Dan Albert Stadium and is therefore not directed toward the field and bleachers. This alternative is potentially feasible and could be constructed considering technical, legal, environmental, and economic factors.

Comparison of Environmental Impacts

The alternative would have the following effects compared to the proposed project.

- Aesthetics: This alternative would install all infrastructure other than the bleachers and PA system. The bleachers do not contribute substantially to any aesthetic impacts. All other visual changes would be similar to those described for the proposed project because the same facilities would be constructed under this alternative. Therefore, this alternative would result in **similar** impacts compared to the project.
- Air Quality: This alternative would require the similar type of construction activities as the proposed project, except the visiting team bleachers would not be constructed and the PA system would not be installed. This likely would not change daily emissions because the intensity of construction on any given day would not change. Maintaining daily intensity of construction means air quality impacts would be similar to the proposed project. Therefore, this alternative would have **similar** impacts compared to the project.
- Archaeological, Historical, and Tribal Cultural Resources: This alternative would result in the type of ground disturbing construction activities in the lower field as the proposed project. The significant impacts related to unearthing previously undiscovered resources are largely linked to work at the lower field, which would still occur under this alternative. Similarly, impacts to the Dan Albert Stadium are largely linked to the suite of modifications proposed at the stadium such as modifications to the existing stone bleachers for ADA compliance. These modifications would still occur under this alternative. Because the visiting bleachers would not be constructed, additional modifications to the existing stone bleachers may be required to provide separation of home and visiting spectators. Therefore, this alternative may result in **greater** impacts compared to the proposed project.

- **Biological Resources:** This alternative would result in the types of ground disturbing construction activities as the proposed project in the lower field. The significant impacts to biological resources are linked to construction at the lower field and the tree removal and project construction that would occur in that area, including the area with the visitor bleachers. Most of these activities would still occur under this alternative. As a result, this alternative would slightly reduce biological resources impacts. This alternative would have **less** impacts to the proposed project.
- **Geology and Soils, Hydrology and Water Quality:** This alternative would require the type of ground disturbing construction activities as the proposed project in the lower field, but not in the Dan Albert Stadium. The significant impacts to paleontological resources are largely associated with work for the bleachers and ground-disturbing activities at the lower field. These activities would not occur under this alternative. As a result, this alternative would avoid or substantially reduce a significant impact of the proposed project on paleontological resources. The alternative would also have **less** effects to geology and soils and hydrology and water quality because levels of ground disturbance under this alternative would be reduced when compared to the proposed project.
- **Greenhouse Gases and Energy:** This alternative would require the similar type of construction activities as the proposed project, except the visiting team bleachers would not be constructed and the PA system would not be installed. This could minimally reduce overall GHG emissions and energy use. A reduction in overall GHG emissions would reduce the intensity of GHG impacts as well as overall energy consumption. Therefore, this alternative would result in **less** impacts compared to the project.
- **Hazards and Hazardous Materials:** This alternative would require the similar type of construction activities as the proposed project. Similar types of hazardous materials would be used on-site, transported, and disposed of under this alternative. However, construction of the bleachers would not be needed. Therefore, this alternative would have **less** impacts to the proposed project.
- **Land Use and Planning, Utilities and Service Systems** Similar to the proposed project, this alternative would not change land use patterns in the project area. The increase in demand for utilities and service systems would also be similar. As a result, this alternative would have **similar** impacts to the proposed project.
- **Noise:** This alternative would not install the PA system on the project site; therefore, a portable PA system would need to be used as part of this alternative, which would likely result in limiting nighttime announcements to only football games. It could also result in less-directed noise generation from the PA system. The significant impacts related to stadium use in the evening is related to a both crowd noise and the PA system, with each source having a different contribution to the impact at sensitive receptors. At several receptors, the effective noise changed caused by the PA system is substantial, as shown in Table 3.11-9. As a result, this alternative would substantially reduce noise impacts because the portable PA system would be used at fewer nighttime activities. Other noise generating impacts would also be similar to the proposed project, as similar types of construction and operation activities would occur under this alternative. Therefore, this alternative would have **less** impacts compared to the proposed project.
- **Transportation:** This alternative would require the same type of construction activities as the proposed project. Although the visiting team bleachers would not be constructed, the same safety impact related to traffic would occur under this alternative but could be reduced in intensity because the bleachers would not be constructed. As a result, this alternative would not substantially reduce the significant impact. Because this alternative would not substantially reduce the significant impact, it would result in **similar** impacts to the proposed project.

CONCLUSION

This alternative could meet all of the basic project objectives and would be potentially feasible, but raises concerns about staff labor as well as the performance of the portable PA system. This alternative would substantially lessen significant impacts of the proposed project related to noise and paleontological resources.

5.3.5 Alternative 5: Seasonal Lighting Restrictions and No Non-MPUSD Events

DESCRIPTION

This alternative would involve MPUSD constructing all project improvements included as part of the project but limiting the use of facilities to MPUSD only and restricting nature and time of use. MPUSD would construct the lower field, construct the new visitor bleachers, improve the existing bleachers, and construct the new press box. Use of the MHS facilities would be restricted as follows:

- **Non-MPUSD use:** Non-MPUSD groups would not be allowed to rent the Dan Albert Stadium or lower field.
- **Nighttime lighting:** The use of nighttime lighting would be allowed Monday through Friday only, and between the months of October and March.

EVALUATION OF ALTERNATIVE

Ability to Meet Most of the Basic Project Objectives

This alternative would partially meet the objective of improving on-campus athletic facilities and provide more space for athletes to practice simultaneously; however, it would limit the actual use of these facilities due to the seasonal restrictions. For the same reason, this alternative would partially meet the basic objective of facilitating night-time athletic events and practices at the Dan Albert Stadium. With the limitation in use of nighttime lighting to between the months of October and March, some practices and games would have to end at sunset. For example, cross country practices, which would extend to 5:00 pm from June through November, would have end prior to sunset on days when sunset is prior to 5:00 pm. Additionally, football games in August and September would continue to have to be played at MPC because sunset occurs earlier than games would end in September. About half of MHS football games are held in August and September, with the remainder in October and November. With the combination of restricting practices and restricting athletic events between April and September, this alternative would restrict use of new facilities for nighttime events, but some nighttime use would be possible.

This alternative would meet the objective of providing adequate visitor seating away from the home team seating area at the Dan Albert Stadium because the visitor bleachers would be constructed.

This alternative meets all the basic project objectives, but would not meet objectives related to nighttime use of the project to the same extent as the proposed project.

Potential Feasibility

This alternative is potentially feasible and could be constructed considering technical, legal, environmental, and economic factors.

Comparison of Environmental Impacts

The alternative would have the following effects compared to the proposed project.

- **Aesthetics, Light and Glare:** This alternative would install lighting standards at the Dan Albert Stadium, as proposed by the project but would the use of lighting at night by season and by user group. While the reduction in nighttime lighting use would affect only some activities (e.g., evening football games, evening practices and activities outside of October through March), any reduction in the potential frequency of use of nighttime lighting would be considered a substantial reduction of nighttime lighting impacts due to the sensitivity of neighborhood receptors. Other aesthetic impacts related to construction and visual changes at the lower field would be similar to the proposed project. Because this alternative would reduce the frequency of nighttime lighting use, changes in the nighttime lighting environment would be less. Therefore, this alternative would result in **less** impacts compared to the project.

- **Air Quality, Greenhouse Gases, and Energy:** This alternative would require the same type of construction activities as the proposed project. It is not expected to affect the intensity of construction on any one day; therefore, the same level of air quality impact would occur as for the proposed project. Prohibiting the use of facilities by non-MPUSD entities and seasonally could reduce energy demands; however, it is unlikely that this would result in a significant difference in energy consumption. Therefore, this alternative would overall result in **similar** impacts compared to the project.
- **Archaeological, Historical, and Tribal Cultural Resources:** This alternative would require the same type of construction activities as the proposed project. The significant impacts related to unearthing previously undiscovered resources are largely linked to work at the lower field, which would still occur under this alternative. Similarly, impacts to the Dan Albert Stadium are largely linked to the suite of modifications proposed at the stadium such as modifications to the existing stone bleachers for ADA compliance. These modifications would still occur under this alternative. As a result, this alternative would overall have **similar** impacts to the proposed project.
- **Biological Resources:** This alternative would require the same types of construction activities as the proposed project. The impacts to biological resources are linked to construction at the lower field. These activities would still occur under this alternative. As a result, this alternative would have overall **similar** impacts to the proposed project.
- **Geology and Soils, Hydrology and Water Quality:** This alternative would require the same types of construction activities as the proposed project. The significant impacts to paleontological resources are associated with work for the bleachers and ground-disturbing activities at the lower field. These activities would still occur under this alternative. As a result, this alternative would not avoid or substantially reduce a significant impact of the proposed project on paleontological resources. The alternative would overall have **similar** effects to geology and soils and hydrology and water quality because there would be similar levels of ground disturbance under this alternative when compared to the proposed project.
- **Hazards and Hazardous Materials:** This alternative would require the same type of construction activities as the proposed project. As a result, similar types and amounts of hazardous materials would be used on-site, transported, and disposed of under this alternative. And the potential to encounter contaminated soils would be the same. Therefore, this alternative would have **similar** impacts to the proposed project.
- **Land Use and Planning, Utilities and Service Systems** Similar to the proposed project, this alternative would not change land use patterns in the project area. The increase in demand for utilities and service systems would also be similar. As a result, this alternative would have **similar** impacts to the proposed project.
- **Noise:** This alternative would install the PA system on the project site. The significant impacts related to stadium use in the evening is related to a both crowd noise and the PA system, with each source having a different contribution to the impact at sensitive receptors, as shown in Table 3.11-9. This alternative would limit the use of the Stadium at night to Monday through Friday only, and between the months of October and March. As a result, nighttime activities could not occur for 6 months of the year, and this alternative could substantially reduce noise impacts. Other noise generating impacts would also be similar to the proposed project, as similar types of construction and facility use would occur under this alternative. Therefore, this alternative would have **less** impacts than the proposed project. Impacts would be **less** than the proposed project.
- **Transportation:** This alternative would require the same kinds of construction of the proposed project. Therefore, the same safety impact related to traffic would occur under this alternative. As a result, this alternative would not substantially reduce the significant impact. Although this alternative would limit the number of events held at the lower field and Dan Albert Stadium, some, such as evening football games, would still be held elsewhere. The same levels and patterns of attendance are expected under this alternative as for the proposed project; as a result, VMT impacts would be the same as for the proposed project. Therefore, this alternative would have **similar** impacts to the proposed project.

CONCLUSION

This alternative would be potentially feasible and lessens at least one significant impact of the proposed project by limiting the use of nighttime lighting and the PA system. This alternative meets all the basic project objectives, but would not meet objectives related to nighttime use of the project to the same extent as the proposed project.

5.4 NO PROJECT ALTERNATIVE

CEQA requires that an EIR evaluate a No Project Alternative and its impacts (CEQA Guidelines section 15126.6(e)(1)). The intent of this evaluation is to provide decisionmakers with information that will allow them to compare the effects of approving the proposed project with the effects of denying the proposed project. CEQA requires this evaluation of the No Project Alternative, whether or not it meets the alternatives screening criteria related to potential feasibility, objectives, and avoiding or substantially reducing a significant impact. The No Project Alternative includes "the existing conditions at the time the notice of preparation is published…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" (CEQA Guidelines Section 15126.6(e).

5.4.1 Description of the No Project Alternative

Under the No Project Alternative, the athletic facilities would remain as they currently are on the MHS campus. At the Dan Albert Stadium, no night-time lighting would be installed, no upgrades would be made to the existing bleachers, no visitor bleachers, would be constructed, and the temporary press box would not be replaced with the permanent press box. The lower field would not be constructed, and the area would remain an informal overflow parking lot.

Athletic activities would continue to occur as they are presently occurring and as described in Chapter 2, Project Description. Generally, this means that athletic and other activities would end prior to sundown, and that no evening or nighttime events would take place at the Dan Albert Stadium. As a result, students would continue to share the Dan Albert Stadium among numerous activities at once, varsity football would take precedence over junior varsity, and football games would continue to be played at Monterey Peninsula College.

5.4.2 Comparison of Environmental Impacts

This section presents a comparison of the No Project Alternative to the proposed project.

- Aesthetics, Light, and Glare: The No Project Alternative would maintain the site in its current condition, no construction would occur on site, and activities occurring in the project area would not change. No lighting would be installed. Aesthetic impacts of the proposed project are largely related to installation of lighting at the Dan Albert Stadium, which the No Project Alternative would avoid. As a result, the No Project Alternative would have no aesthetic impacts. For these reasons, the No-Project Alternative would be environmentally superior to the proposed project with regards to aesthetic impacts.
- Air Quality, Greenhouse Gases, and Energy: The No Project Alternative would not emit air pollutants or greenhouse gas emissions from construction and operation. Energy consumption on the site would remain the same because the activity schedule at Dan Albert Stadium would remain the same. Impacts of the proposed project related to air quality, greenhouse gases, and energy consumption are largely related to construction activity, which the No Project Alternative would avoid. Therefore, the No-Project Alternative would be environmentally superior to the project.
- Archaeological, Historical, and Tribal Cultural Resources: The No Project Alternative would not result in ground disturbing activities or modifications to the Dan Albert Stadium because no construction would occur. Therefore, this alternative would have no impact on the NRHP-eligible Dan Albert Stadium or buried resources. Impacts of the proposed project related to cultural resources are related to modifications of the Dan Albert Stadium and

activities that involve excavation and ground disturbance, which the No Project Alternative would avoid. As a result, the No-Project Alternative is environmentally superior to the proposed project.

- **Biological Resources:** The No Project Alternative would not result in tree removal or ground disturbing activities because no construction would occur. Therefore, there would be no impact to nesting birds. It would not result in any erosion or sedimentation that could adversely affect riparian areas or sensitive habitats. Biological resources impacts of the proposed project are related to construction activities, which the No Project Alternative would avoid. As a result, the No-Project Alternative would be environmentally superior to the proposed project.
- **Geology and Soils, Hydrology and Water Quality:** The No Project Alternative would not result in the installation of visiting team bleachers; therefore, potential impacts to unknown paleontological resources would be avoided. Furthermore, no ground disturbing activities with the potential to result in erosion, sedimentation, or worsening of unstable soil conditions would occur. Geology, soils, hydrology, and water quality impacts of the proposed project are largely related to construction activities, which the No Project Alternative would avoid. As a result, the No-Project Alternative would be environmentally superior to the proposed project
- **Hazards and Hazardous Materials**: The No Project Alternative would not involve use of hazardous materials for construction because no construction would be required. There would be no risk of igniting a fire because no construction vehicles would be needed for the No Project Alternative. Hazards impacts from the proposed project are largely related to construction activities, which the No Project Alternative would avoid. As a result, the No-Project Alternative would be environmentally superior to the proposed project.
- **Land Use and Planning and Utilities and Service Systems:** The No Project Alternative would not change land use patterns in the project area or increase demand for utilities and service systems. Therefore, the No-Project Alternative would be environmentally superior to the proposed project.
- **Noise and Vibration:** The No Project Alternative would not result in noise generating activities associated with construction, and operation (crowd noise and PA system) of the proposed project. Existing noise levels would continue at the site, ending by sunset when all activities would cease. Noise and vibration impacts associated with the proposed project are associated with its construction and with the new evening and nighttime uses, which would not occur under the No Project Alternative. As a result, the No Project Alternative would be environmentally superior to the proposed project.
- **Transportation:** The No Project Alternative would not contribute to roadway hazards along any roadways because no large construction equipment would be needed. No changes in parking demand would occur on site from the existing parking demand because the activities schedule would remain the same. As a result, the No-Project Alternative would be environmentally superior to the proposed project.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

State CEQA Guidelines Section 15126.6(e)(2) states that when the no-project alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives. As discussed above and shown below in Table 5-1, the No Project Alternative would be environmentally superior for all environmental resource areas. As a result, this EIR must identify an alternative among the other alternatives that is environmentally superior.

Identifying the environmentally superior alternative requires consideration of several environmental factors. Because the alternatives had similar impacts for all resource areas, as shown in Table 5-1, and no alternative was environmentally superior across all resource areas, the District must weigh environmental trade-offs in concluding which is environmentally superior. As a result, other factors were ultimately considered to help designate the environmentally superior alternative. Although this EIR identifies an environmentally superior alternative, it is within the discretion of the MPUSD Board to balance the importance of each impact according to District priorities and determine its own conclusion. Table 5.5-1 also contains a ranking of alternative from least impactful to most impactful, by resource area.

Alternative 1 could only potentially result in a substantial reduction in impacts related to PA system noise, which means it is least effective among the alternatives at reducing impacts of the proposed project. Also, light spill effects may be worse than the proposed project when using portable lights. Therefore, Alternative 1 is not the environmentally superior alternative.

As described in Chapter 3, aesthetics and noise impacts of the proposed project are significant and unavoidable. Crowd and public address system noise and nighttime lighting are of concern to residents in the adjacent neighborhood. Therefore, the reduction of these impacts is given higher priority in determining which alternative is the environmentally superior alternative. Alternatives 2, 3, 4, and 5 reduce noise impacts. In addition to reducing significant unavoidable impacts to noise, Alternative 4 reduces impacts across the most resource areas, as shown in Table 5-1. Most of the reductions in impacts other than noise are minor and temporary, however, and occur as a result of reduced construction intensity (i.e., less construction occurring). Therefore, these reductions are for temporary, short-term impacts. Additionally, Alternative 4 would increase historic architecture impacts to the Dan Albert Stadium, although these impacts could likely be mitigated through application of the Secretary of Interior Standards, as they were with the proposed project. Alternative 4 does not reduce nighttime lighting impacts. Although Alternative 4 reduces many impacts, most reductions are minor and short-term. While Alternative 4 substantially reduces significant unavoidable noise impacts, it does not reduce the significant unavoidable nighttime lighting impacts of the proposed project. Therefore, Alternative 4 is not the environmentally superior alternative.

Alternatives 2, 3 and 5 all reduce impacts to both nighttime lighting and noise because they restrict use of the MHS facilities, albeit in different ways. Table 5-2 summarizes the use restrictions of these three alternatives.

Alternative 2 implements a variety of usage restrictions based on time and user group, while Alternative 3 implements a nighttime curfew for all activities, but no other use restrictions. Alternative 5 also imposes a variety of use restrictions, including not allowing non-MPUSD to use the facilities and imposing a seasonal restriction on the use of nighttime lighting. Between these three alternatives, Alternative 3 is the least restrictive, as the 9 p.m. curfew affects the fewest number of activities. Therefore, Alternative 3 is not the environmentally superior alternative.

As shown in Table 5-2, Alternatives 2 and 5 have differing restrictions on games that result in reduction of lighting and noise impacts. In terms of lighting and noise impacts from October through March, Alternatives 2 and 5 would result in similar impacts for non-MPUSD use, as both alternatives would not allow non-MPUSD use of lighting or the PA system. For MPUSD use, both alternatives would preclude lighting and PA system use on the weekend. However, Alternative 2 is more restrictive from October through March because Alternative 2 has a curfew for non-football games and for practices, while Alternative 5 has no such limitation during the week. In terms of lighting and noise impacts from April through September, both Alternative 2 and Alternative 5 would not allow the use of lighting or the PA system during evening hours. Therefore, because Alternative 2 is more restrictive from October through March, Alternative 2 would result in a greater reduction of noise and lighting impacts. Therefore, the EIR concludes that Alternative 2 is the environmentally superior alternative.

Table 5-2 Facility Use Restrictions of Alternatives 2, 3, and 5

Alternative	Use Restrictions	Activities Allowed
Alternative 2: Restricted Use	▶ **Sunday:** No use of the lower field or Dan Albert Stadium field would occur. ▶ **Saturday:** No use of the lower field or Dan Albert Stadium field for school-related activities would begin before 8:00 a.m. and must end by sunset. For non-school related activities, uses would not begin before 9:00 a.m. and would end by sunset. ▶ **Weekdays:** Non-school related group use would not begin before 9:00 a.m. and would end by 6:00 p.m. ▶ **Non-school related use of PA system and Lighting at Dan Albert Stadium:** Non-school related activities would not use the PA system or field lighting at Dan Albert Stadium. ▶ **MHS Athletic Game use of Lighting at Dan Albert Stadium:** Other than for football, lights may be used for up to twelve games throughout the year by other Monterey High field sports (four games each of soccer, field hockey, and lacrosse) during the months of October to March only. These games generally end around 7:00 p.m. and lights will be turned off soon after the conclusion of the game. At no time on game days will lights for field sports other than football be left on later than 8:00 p.m. ▶ **MHS Athletic Practice use of Lighting at Dan Albert Stadium:** Lights may be used for field sports practices during the months of October to March only. Practices for field sports generally end around 7:00 p.m. and lights will be turned off as soon as practicable after the end of practice, taking into account safety and any cleanup activities that must occur. At no time will lights for practices be left on later than 8:00 p.m.	▶ October through March ◤ Select games for non-football sports (soccer, field hockey, lacrosse) can use lighting into the evening hours. Lighting cannot be kept on past 8:00 p.m. ◤ All football games. ◤ Practices can use lighting from October to March. Lighting cannot be kept on later than 8:00 p.m. ◤ Non-school related activities, without use of lighting and PA system, on weekdays between 9:00 p.m. and 6:00 p.m. and on Saturday between 9:00 a.m. and sunset. ◤ School-related activities between 8:00 a.m. and sunset on Saturdays. ▶ April through September ◤ School-related use (e.g., practices and games) on weekdays, during the day. ◤ School-related activities between 8:00 a.m. and sunset on Saturdays. ◤ Non-school related activities, without use of lighting and PA system, on weekdays between 9:00 p.m. and 6:00 p.m. and on Saturday between 9:00 a.m. and sunset.
Alternative 3: Nighttime Curfew	▶ **Nighttime activities:** All nighttime activities must end by 9:00 p.m.	▶ All activities, but they must end by 9:00 p.m.
Alternative 5: Seasonal Lighting Restrictions and No Non-MPUSD Events	▶ **Non-MPUSD use:** Non-MPUSD groups would not be allowed to rent the Dan Albert Stadium or lower field. ▶ **Nighttime lighting:** The use of nighttime lighting would be allowed Monday through Friday only, and between the months of October and March.	▶ October through March ◤ All school related use, during the day and in the evening, Monday through Friday. ▶ April through September ◤ School-related use during daytime hours

Table 5-1 Summary of Environmental Effects of the Alternatives Relative to the Monterey High School Stadium Improvements Project

Environmental Topic	Proposed Project	Alternative 1: Portable Lighting (Rank[1])	Alternative 2: Restricted Use (Rank[1])	Alternative 3: Nighttime Curfew (Rank[1])	Alternative 4: No Visitor Bleachers and No Public Address System (Rank[1])	Alternative 5: Seasonal Lighting Restrictions and No Non-MPUSD Events	Environmentally Superior Alternative
Aesthetics	Significant and Unavoidable	Similar (N/A)	Less (1)	Less (3)	Similar (N/A)	Less (2)	Alternative 2
Air Quality	Less than Significant	Similar (N/A)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Equal[2]
Archaeological, Historical, and Tribal Cultural Resources	Less than Significant (with mitigation)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Greater (N/A)	Similar (N/A)	Equal[2]
Biological Resources	Less than Significant (with mitigation)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Less (1)	Similar (N/A)	Alternative 4
Energy	Less than Significant	Similar (N/A)	Similar (N/A)	Similar (N/A)	Less (1)	Similar (N/A)	Alternative 4
Geology and Soils	Significant and Unavoidable	Similar (N/A)	Similar (N/A)	Similar (N/A)	Less (1)	Similar (N/A)	Alternative 4
Greenhouse Gas Emissions and Climate Change	Less than Significant	Similar (N/A)	Similar (N/A)	Similar (N/A)	Less (1)	Similar (N/A)	Alternative 4
Hydrology and Water Quality	Less than Significant	Similar (N/A)	Similar (N/A)	Similar (N/A)	Less (1)	Similar (N/A)	Alternative 4
Hazards and Hazardous Materials	Less than Significant	Similar (N/A)	Similar (N/A)	Similar (N/A)	Less (1)	Similar (N/A)	Alternative 4
Land Use and Planning	No Impact	Similar (N/A)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Equal[2]
Noise	Significant and Unavoidable	Less (1)	Less (2)	Less (4)	Less (1)	Less (3)	Alternatives 1, 4
Transportation	Less than Significant (with mitigation)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Equal[2]
Utilities and Service Systems	Less than Significant	Similar (N/A)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Similar (N/A)	Equal[2]

[1] A rank is not provided if the alternatives would result in indistinguishable or greater environmental impacts compared to the proposed project. A rank of "1" is least impactful compared to the proposed project, while a rank of "5" is most impactful but still reduced compared to the proposed project

[2] Alternatives have impacts similar to or greater than the proposed project, such that no alternative would reduce an environmental impact of the proposed project.

5.6 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

5.6.1 Alternative 6: No Lighting

DESCRIPTION

This alternative would involve MPUSD constructing all improvements included as part of the project except for the new field lighting at Dan Albert Stadium. Therefore, MPUSD would construct the lower field, construct the new visitor bleachers, improve the existing bleachers, construct the new press box. Without the nighttime lighting, practices and athletic events would cease prior to sunset. However, with addition of the new lower field facilities, practices could occur simultaneously at Dan Albert Stadium and the lower field, providing additional space to student athletes.

RATIONALE FOR ELIMINATION

Meet Most of the Basic Project Objectives

This alternative would not meet most of the project objectives. This alternative would not fully meet the objective of improving on-campus athletic facilities. This alternative would provide more space for athletes to practice simultaneously. However, the duration of practices and games would still be affected at the Dan Albert Stadium due to the lack of field lighting. That is, practices and games would have to end prematurely or be rescheduled or relocated if they would extend into evening hours at Dan Albert Stadium. Similarly, this alternative would not meet the objective of facilitating night-time athletic events and practices at the Dan Albert Stadium. This alternative would meet the objective of providing adequate visitor seating away from the home team seating area at the Dan Albert Stadium because the visitor bleachers would be constructed. This alternative would only meet one of three basic project objectives; as a result, this alternative does not meet most of the basic project objectives.

Potential Feasibility

This alternative is potentially feasible. It is a reduced intensity variation of the proposed project, and could be constructed considering technical, legal, environmental, and economic factors.

Potential to Substantially Reduce or Avoid Significant Environmental Impacts

This alternative would have no lighting and would preclude nighttime events at Dan Albert Stadium. It would substantially reduce significant impacts due to nighttime lighting and noise.

CONCLUSION

Although this alternative is potentially feasible and avoids or substantially reduces two significant impacts of the proposed project, it does not meet most of the basic project objectives. As a result, this alternative has been dismissed from consideration.

5.6.2 Alternative 7: Seaside High School as Alternative Site

DESCRIPTION

Consistent with CEQA Guidelines section 15126.6(f)(2), MPUSD identified an alternative site as an alternative to the proposed project. Under this alternative MPUSD would construct the project as proposed off-site on a parcel currently owned by MPUSD. One off-site alternative includes holding MHS games at MPUSD's Seaside High School campus, which has football field with permanent nighttime lighting as well as separate bleachers. Seaside High School is in Seaside, approximately 5 miles driving distance from MHS. This is the closest MPUSD high school to MHS.

Under this alternative, MHS students and athletes would use Seaside High School facilities as needed for practices and games that could extend into nighttime hours.

RATIONALE FOR ELIMINATION

Meet Most of the Basic Project Objectives

This alternative would not improve on-campus athletic facilities at MHS and would not enhance opportunities for after-school athletic and extracurricular activities for students. Requiring students to travel to Seaside may even decrease participation in after-school activities because of the more onerous travel requirements. This alternative and any off-site alternative would not meet the objective of facilitating nighttime athletic events and practices at the Dan Albert Stadium for MHS activities because it would require holding these events and activities off-site. Seaside High School has separated visitor and home seating. However, the objective of the project is to provide separate home and visitor seating at Dan Albert Stadium. Therefore, this alternative would not meet that project objective. Therefore, this alternative would not meet any of the project objectives, including the basic project objectives.

Potential Feasibility

This alternative is potentially feasible but may encounter scheduling difficulties and conflicts due to Seaside High School's use of its facilities for its own athletic programs and other activities.

Potential to Substantially Reduce or Avoid Significant Environmental Impacts

This alternative would avoid all impacts at MHS, including significant impacts related to aesthetics, historical resources, biological resources, geology and soils, noise and vibration, and transportation.

CONCLUSION

Although this alternative is potentially feasible and avoids significant impacts of the proposed project, it does not meet any of the project objectives. Therefore, it has been dismissed from further consideration.

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6 OTHER CEQA SECTIONS

6.1 GROWTH INDUCEMENT

CEQA Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an environmental impact report (EIR). Section 15126.2(d) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in any of the following:

- substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or
- removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open-space land to urban uses, and other effects.

6.1.1 Growth-Inducing Impacts of the Project

The project would provide short-term economic activity associated with construction employment opportunities. Project construction is estimated to employ approximately 150 personnel and occur over a period of approximately 11 months. Project operation would not generate new employment opportunities, because maintenance, operation, and educational service needs would be filled by existing MPUSD employees. Additionally, the proposed athletic improvements would not influence the amount of school enrollment.

GROWTH-INDUCING EFFECTS OF CONSTRUCTION

It is estimated that project construction would require up to 150 on-site personnel. Construction jobs supporting the project would be temporary, and it is the nature of construction work that contractors bid and work on projects based on their availability and need for work, and in regions that are accessible to their work force. Additionally, all 150 personnel would not be on the site at once, as construction needs would change depending on the phase and type of construction being completed. As existing construction projects near completion, contractors may seek out new construction projects to maintain employment for the same workers. Given the short duration of on-site

construction activities it is not reasonable to anticipate that construction workers would move to the city or the region as a result of the proposed project. In addition, the number of employees residing in Monterey County exceeds the number of jobs available. In 2019, the percentage of unemployed individuals ranged from 10 percent to 3.5 percent (EDD 2020). For these reasons, it is evident that the existing labor force residing locally (within the city or county) would be sufficient to meet construction employment needs for the project. Therefore, the project would not induce population growth by bringing substantial numbers of construction jobs to the area or result in associated increases in demand for housing or goods and services.

GROWTH-INDUCING EFFECTS OF OPERATION

The proposed project would not induce population growth as it is intended to serve the existing student population. The facilities would be maintained by existing MPUSD staff and would not result in new local job creation. As a result, the new and improved MHS facilities would not result in direct or indirect population growth.

6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The State CEQA Guidelines Section 15126.2(b) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. The following impacts are considered significant and unavoidable; that is, no feasible mitigation is available to reduce the project's impacts to a less-than-significant level:

- **Impact 3.1-3 (Aesthetics, Light, and Glare):** Create a New Source of Substantial Light or Glare During Construction and When in Use after Completion
- **Impact 3.11-3 (Noise and Vibration):** Generate Noise During Evening Use of Dan Albert Stadium and Daytime Use of the Lower Field

Additional detail about these impacts is provided in their respective sections of Chapter 3 of this EIR.

6.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the project. Specifically, the State CEQA Guidelines section 15126.2(c) states:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generation to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The project would result in the irreversible and irretrievable commitment of energy and material resources during construction and operation, including the following:

- construction materials, including such resources as soil, rocks, wood, concrete, and steel;
- land area committed to new project facilities; and
- energy expended in the form of electricity, gasoline, diesel fuel, and oil for equipment and transportation vehicles that would be needed for project construction and operation.

The use of these nonrenewable resources is expected to account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs within the region. As discussed in Section 3.5, "Energy," the project would not result in the wasteful, inefficient, or unnecessary consumption of energy. Additionally, the project would adhere to the California Energy Code and CALGreen, and incorporate water conservation and energy efficient design elements. Therefore, the use of energy on site would occur in an efficient manner.

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